THE MIRACLE IN THE CELL



HARUN YAHYA

The subject of this book is the "cell." Most people would say that this topic belongs to the realm of biology or chemistry, reasoning that any treatise about the cell could only be a biology or a chemistry textbook. However, the book you hold in your hands is no textbook. Its aim is neither to increase your scientific knowledge, nor teach you biology in detail, because by itself, increased biological knowledge is of no benefit.

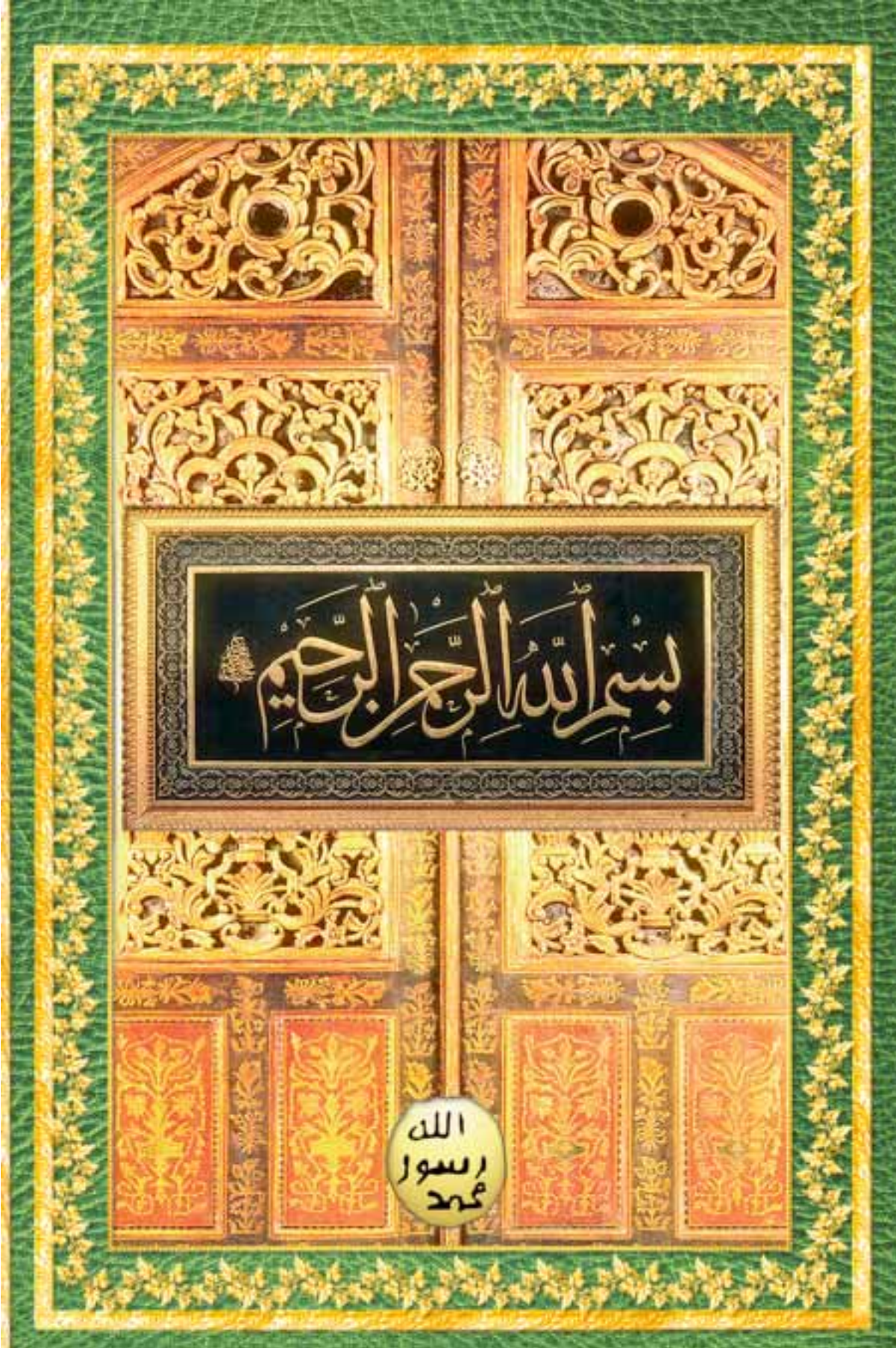
This book's purpose is to aid in your reflection. The dry facts numb the brain because this method stops one from asking questions that need to be asked. This book analyzes some of the technical details about the cell but at the same time, asks the necessary questions and searches for the wisdom behind the events that are usually so dryly described.

Bringing out the facts that evolutionist scientists try to cover up, it reveals the miracle in the cell. It reveals that the intelligence displayed by the cell did not come about by itself. Like all beings, the cell carries out the duties given it by God, and the intelligence it displays is the intelligence of God.



ABOUT THE AUTHOR

The author, who writes under the pen-name Harun Yahya, was born in Ankara in 1956. He studied arts at Istanbul's Mimar Sinan University, and philosophy at Istanbul University. Since the 1980s, the author has published many books on political, faith-related and scientific issues. Greatly appreciated all around the world, these works have been instrumental in helping many to return their faith in God, and, in many others, to gain a deeper insight into their faith. Harun Yahya's books appeal to all kinds of readers, regardless of their age, race, or nationality, for they focus on one objective: to broaden the reader's perspective by encouraging him or her to think about a number of critical issues, such as the existence of God and His unity, and to live by the values He prescribed for them.


بسم الله الرحمن الرحيم
الله
رسول
محمد

TO THE READER

A special chapter is assigned to the collapse of the theory of evolution because this theory constitutes the basis of all anti-spiritual philosophies. Since Darwinism rejects the fact of creation—and therefore, God's existence—over the last 140 years it has caused many people to abandon their faith or fall into doubt. It is therefore an imperative service, a very important duty to show everyone that this theory is a deception. Since some readers may find the chance to read only one of our books, we think it appropriate to devote a chapter to summarize this subject.

All the author's books explain faith-related issues in light of Qur'anic verses, and invite readers to learn God's words and to live by them. All the subjects concerning God's verses are explained so as to leave no doubt or room for questions in the reader's mind. The books' sincere, plain, and fluent style ensures that everyone of every age and from every social group can easily understand them. Thanks to their effective, lucid narrative, they can be read at one sitting. Even those who rigorously reject spirituality are influenced by the facts these books document and cannot refute the truthfulness of their contents.

This and all the other books by the author can be read individually, or discussed in a group. Readers eager to profit from the books will find discussion very useful, letting them relate their reflections and experiences to one another.

In addition, it will be a great service to Islam to contribute to the publication and reading of these books, written solely for the pleasure of God. The author's books are all extremely convincing. For this reason, to communicate true religion to others, one of the most effective methods is encouraging them to read these books.

We hope the reader will look through the reviews of his other books at the back of this book. His rich source material on faith-related issues is very useful, and a pleasure to read.

In these books, unlike some other books, you will not find the author's personal views, explanations based on dubious sources, styles that are unobservant of the respect and reverence due to sacred subjects, nor hopeless, pessimistic arguments that create doubts in the mind and deviations in the heart.

THE MIRACLE IN THE CELL

HARUN YAHYA

October, 2005

ABOUT THE AUTHOR

Now writing under the pen-name of HARUN YAHYA, he was born in Ankara in 1956. Having completed his primary and secondary education in Ankara, he studied arts at Istanbul's Mimar Sinan University and philosophy at Istanbul University. Since the 1980s, he has published many books on political, scientific, and faith-related issues. Harun Yahya is well-known as the author of important works disclosing the imposture of evolutionists, their invalid claims, and the dark liaisons between Darwinism and such bloody ideologies as fascism and communism.

Harun Yahya's works, translated into 41 different languages, constitute a collection for a total of more than 45,000 pages with 30,000 illustrations.

His pen-name is a composite of the names Harun (*Aaron*) and Yahya (*John*), in memory of the two esteemed prophets who fought against their people's lack of faith. The Prophet's seal on his books' covers is symbolic and is linked to their contents. It represents the Qur'an (the Final Scripture) and Prophet Muhammad (may God bless him and grant him peace), last of the prophets. Under the guidance of the Qur'an and the Sunnah (teachings of the Prophet [may God bless him and grant him peace]), the author makes it his purpose to disprove each fundamental tenet of godless ideologies and to have the "last word," so as to completely silence the objections raised against religion. He uses the seal of the final Prophet (may God bless him and grant him peace), who attained ultimate wisdom and moral perfection, as a sign of his intention to offer the last word.

All of Harun Yahya's works share one single goal: to convey the Qur'an's message, encourage readers to consider basic faith-related issues such as God's existence and unity and the Hereafter; and to expose godless systems' feeble foundations and perverted ideologies.



Harun Yahya enjoys a wide readership in many countries, from India to America, England to Indonesia, Poland to Bosnia, Spain to Brazil, Malaysia to

Italy, France to Bulgaria and Russia. Some of his books are available in English, French, German, Spanish, Italian, Portuguese, Urdu, Arabic, Albanian, Chinese, Swahili, Hausa, Dhivehi (spoken in Mairitius), Russian, Serbo-Croat (Bosnian), Polish, Malay, Uygur Turkish, Indonesian, Bengali, Danish and Swedish.

Greatly appreciated all around the world, these works have been instrumental in many people recovering faith in God and gaining deeper insights into their faith. His books' wisdom and sincerity, together with a distinct style that's easy to understand, directly affect anyone who reads them. Those who seriously consider these books, can no longer advocate atheism or any other perverted ideology or materialistic philosophy, since these books are characterized by rapid effectiveness, definite results, and irrefutability. Even if they continue to do so, it will be only a sentimental insistence, since these books refute such ideologies from their very foundations. All contemporary movements of denial are now ideologically defeated, thanks to the books written by Harun Yahya.

This is no doubt a result of the Qur'an's wisdom and lucidity. The author modestly intends to serve as a means in humanity's search for God's right path. No material gain is sought in the publication of these works.

Those who encourage others to read these books, to open their minds and hearts and guide them to become more devoted servants of God, render an invaluable service.

Meanwhile, it would only be a waste of time and energy to propagate other books that create confusion in people's minds, lead them into ideological chaos, and that clearly have no strong and precise effects in removing the doubts in people's hearts, as also verified from previous experience. It is impossible for books devised to emphasize the author's literary power rather than the noble goal of saving people from loss of faith, to have such a great effect. Those who doubt this can readily see that the sole aim of Harun Yahya's books is to overcome disbelief and to disseminate the Qur'an's moral values. The success and impact of this service are manifested in the readers' conviction.

One point should be kept in mind: The main reason for the continuing cruelty, conflict, and other ordeals endured by the vast majority of people is the ideological prevalence of disbelief. This can be ended only with the ideological defeat of disbelief and by conveying the wonders of creation and Qur'anic morality so that people can live by it. Considering the state of the world today, leading into a downward spiral of violence, corruption and conflict, clearly this service must be provided speedily and effectively, or it may be too late.

In this effort, the books of Harun Yahya assume a leading role. By the will of God, these books will be a means through which people in the twenty-first century will attain the peace, justice, and happiness promised in the Qur'an.

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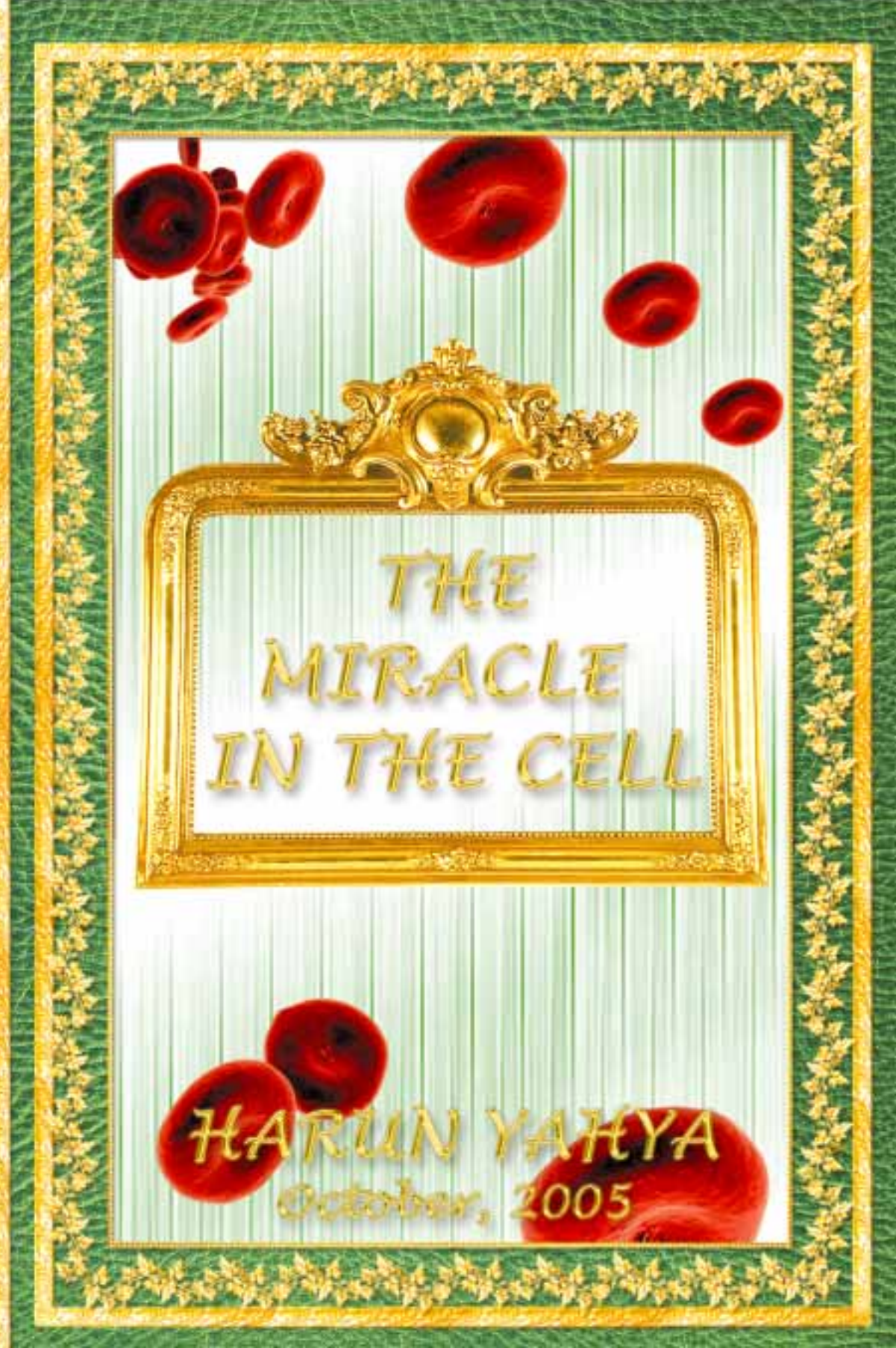
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Abbreviation used:
(pbuh): Peace be upon him (following a reference to the prophets)

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THE
MIRACLE
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HARUN YAHYA
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FOREWORD 10
INTRODUCTION. 16
THE TINIEST LIVING ENTITY 24
THE SECRET WORLD OF DNA. 32
PROTEIN SYNTHESIS IN THE CELL. 58
SYSTEMS WITHIN THE CELL 84
PROTEINS: THE MIRACLE MOLECULES 90
THE CELL MEMBRANE. 110
DEVELOPMENT IN THE MOTHER WOMB 126
ENERGY PRODUCTION IN THE CELL 152
VIRUSES 162
PLANT CELL 170
CONCLUSION 180
THE DECEPTION OF EVOLUTION 186


[God is] the Originator of the
heavens and Earth.
When He decides on
something, He just says to it,
"Be!" and it is.
(Qur'an, 2:117)


FOREWORD



The subject of this book is the cell, the building block of the human body and of every species of plants and animals. Most people would say that this topic belongs to the realm of biology or even chemistry, reasoning that any treatise about the human cell could only be a biology or a chemistry textbook. However, the book you hold in your hands is no textbook. Its aim is neither to increase your scientific knowledge, nor teach you biology in detail, because by itself, increased biological knowledge of the cell is of no benefit. And besides, most of the details are taught to students while at school-though most of them forget it all soon after, never to remember it again. Why? Because this type of biological information about the cell is presented to students in a completely wrong logical context.

In fact, young people are infected with this twisted logic right from the beginning of their lives. As soon as a young child starts to observe the world around him, he's amazed at everything he sees and begins to ask questions. Looking at the Sun, he is awestruck. "How," he asks, "can such a vast ball of fire can stay up there in space, just the right distance away to produce just enough heat and light for human beings on Earth? Who put the Sun there? And how? And why?"

But in response to this and other similar questions, the answer that the child will probably receive is, "The Sun is a perfectly normal star, and it's been there for billions of years. Moreover, nobody placed it there. It appeared by chance as a result of a big explosion that took place, and the Earth-again by coincidence-formed in just the right spot for human life to exist."

But if this same child was raised in a knowledgeable society possessed of a conscience, the answer he received would be quite different: "That the Sun gives us heat and light is a manifestation of God's

endless knowledge and perfect creativity. If He had not willed the Sun to exist, we would not have been able to live our lives here on Earth. Had the Sun been either closer to, or further from, the Earth, we still couldn't exist. Just like everything else around us, the Sun is a miracle and a mercy from God. It should be a means for us to remember Him and to thank Him continuously."

But as mentioned before, the child seldom gets this kind of response and his curiosity is put to sleep with strictly "scientific" logic. Meeting with this type of answer to his every question, finally he learns not to be amazed at anything and to overlook the extraordinariness of all things. When he first eats a tasty apple, he asks, "How is it that trees present such beautiful and beneficial things to man?" In all probability he will receive the same predictable answer: "Trees have been producing fruit for millions of years. It's a natural process. There's nothing amazing about it."

The child who's been desensitized by the society he lives in obtains his real education at school. In general science first of all, he learns the *scientific explanations* behind all creatures and all events. Then, when he gets a bit older, physics, biology and chemistry lessons teach him about the workings of the human body or nature, but he is made to believe that all of this is just natural and not miraculous in any way. He is never allowed to ask the questions that need to be asked: *How did all of this happen? What is the source of the intelligence behind it all? How could such a balance have come about?*



He learns never to ask such questions. For example, he learns the biological details of how fruit develops on trees. He is loaded up with facts about photosynthesis and plant structure. But all the while, questions like the following are never

asked or answered: "How could such a perfect nutrient, presented in the world's most beautiful package and so suitable to a person's taste and health, have come from inside a piece of wood?" "Isn't this a sign that the fruit has been especially created for man; and that both the tree and man have been created by the same possessor of intelligence?"

He is never asked to reflect on the *purpose* of created things. The only thing he does is to be given more and more information about the nature of these things. Dry facts and names do not benefit man in any way; nor do they have the slightest positive effect on his heart or his soul.

As a result of all this, the child loses his sensitivity and his awe toward the miracles in creation. He learns not to display amazement towards anything. He learns to be blind, while claiming that he sees. Finally he is ready to accept certain other ideas. And at this point, the last stop in his education, the theory of evolution finally arrives on the scene.

This desensitized young person has been blinded to all the miracles and extraordinary events surrounding him. Now he struggles to answer this one question: "How did all of these living things come



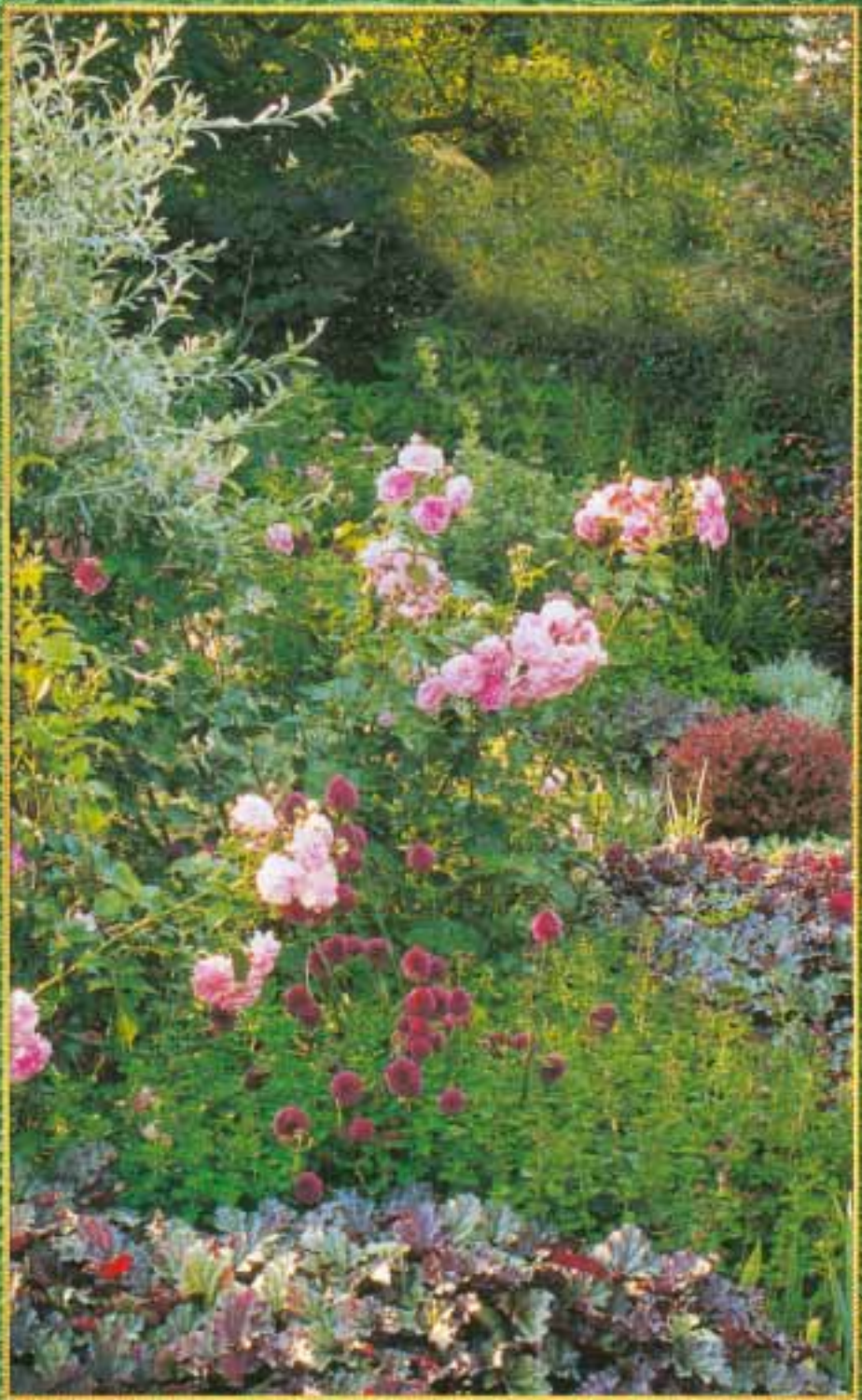
into existence?" And so, the false savior of evolutionary theory comes to his aid. It presents to him in scientific guise such nonsense as the idea that everything came into being as a result of coincidence. And so, "enlightened" by this theory, this young person's heart becomes hardened and he becomes an unbeliever.

He will spend the rest of his life in pursuit of comfort, seeking only to satisfy his selfish desires, and eating and drinking without any reflection. This is because he has eradicated from his heart the last remains of his conscience that, up until now, has continued to make him uncomfortable. But when death comes upon him in this state, and he is thrown towards the Fire, he will beg to be returned to the Earth and become one of the believers. But he will be given the following reply:

> **... Did We not let you live long enough for anyone who was going to pay heed to pay heed? And did not the warner come to you? Taste it then! There is no helper for the wrongdoers. (Qur'an, 35:37)**

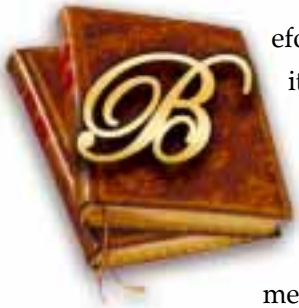
And so, as mentioned in the verse above, it behooves man to reflect and take heed during the period of time given to him. It is not known when one's time will be up, nor is there a minute to lose. Man has been created in order to reflect upon how he and every thing around him have been created and, consequently, to know God and appreciate His power. This is the fundamental purpose of man's life in this world.

And this book's purpose is to aid in your reflection and guidance. As mentioned before, the dry facts learned at school numb the brain because this method stops one from asking questions that need to be asked. The following pages will analyze some of the technical details taught at school but at the same time, we are going to ask the necessary questions and search for the wisdom behind the events that are so dryly described.



INTRODUCTION





Before examining the extraordinary human cell, it's a good idea to consider the faulty logic behind the theory of evolution. Like every long-standing deception, it has been carefully prepared, but within, it possesses discrepancies of logic. We can explain this mentality of evolutionary theory, composed of complete fraudulent and deceitful scenarios, with an analogy:

Consider a remote-controlled toy car. Assume that the person holding the remote control is hiding nearby. Another person observing this car will see its movements only, because he cannot perceive the remote control or whoever is controlling it. He watches the car performing quite intelligent feats, turning according to the path it's on and making apparently conscious movements.

At this point, if the observer's principle is to believe only what he perceives, then he will accept as real only the world he sees around him. He will reject the possibility of another location that he cannot see or that to which he has no access. He won't accept that there is an intelligent mind who he can't see or hear, and that the car moves under this person's command. And so, the person is left to think that the car gained its ability to move about in so intelligent a manner as a result of a series of coincidences-and he will then try to convince himself and everyone around him of this explanation.

His next step will be to develop fictitious theories under the guise of science to support this "belief," but which have no intelligent basis. With a little imagination, the problem is solved, however unlikely the whole scenario: The atoms that compose the car came together "coincidentally" to form this complex mechanical structure. As a result of their coming together accidentally and assembling into a complicated, functional structure, the car also "evolved" such abstract qualities as the ability to think, make decisions, and move about intelligently by

itself. Thus is put forth a *theory* that explains the car.

In a short time, this "scientist" finds others who think like him. Together, they develop this theory further and establish a "forum" from which they propose a new branch of science. They then begin a scientific analysis of the car's movements and develop various formulas. How much does the car slow when it approaches a curve, and at what angle does it turn? Under what conditions does it speed up, and how fast does it go? Under what conditions does it slow down or stop? When does it reverse? They meticulously measure these and many other similar characteristics and make calculations. They then write a book detailing all these measurements and calculations.

But their actual problem lies in explaining how the car came to be able to carry out such perfect actions all by itself. And none of the analyses and research carried out by these so-called "scientists" can answers that question. They may have described innumerable features about the car's technical aspects and details, and are coming up with more findings every day. But as yet, they haven't made the slightest advance in understanding the radio-car's manufacture, and thus are no better off than when they first started: Who made the car? How did it come about to move in such a "conscious" manner? These are all still mysteries.

The "scientists" reply by avoiding and disguising these questions. To begin with, they try their best to prevent them from arising in the first place. When questions do come up, they give a very "scientific" explanation: "Maybe we don't have any evidence that holds up right now, but surely answers will be found in the future."

The theory that the car came about by itself is so entrenched and elaborated that by now, it has become the foundation of these scientists' careers. For this reason, they try their hardest to keep the theory credible, whatever the cost. If need be, they'll even resort to deceit and trickery to keep the theory from losing credibility and to stop people from considering other possibilities. But of course, any such dishon-

esty should be overlooked in the cause of advancing such a "sublime" goal.

These books are written very cleverly, in that they contain some accurate technical details which have been discovered about the car. With a little imagery and a few plays on words, one gets the impression that it does, in fact, answer the question of how the car came into existence and how it came about to possess its apparent intelligence. And here is the important point: By interspersing all this nonsense about "chance" and "coincidence" with these complicated formulas and calculations about how the car came about, one is left with the impression that the nonsense too is scientific fact. In this way, a false and decaying theory, which has now become an ideology, is established with skilful and artful deceit, and interspersed with some facts that are wholly correct, yet do not bring one any closer to the truth. Moreover, care is taken to choose a tone of the utmost self-confidence and superiority, and which instills trust. In this way, various falsehoods proposed by this theory are taken to have been scientifically proven. Now that the lie has a so-called foundation, it takes only a strong imagination to create unlimited but fantastic scenarios based on it. Meanwhile, the car has already taken its place in the "evolutionary tree," and this amazing object-actually created by a superior engineer-is proclaimed to be the result of a chain of miraculous "coincidences." Of course the car is given a Latinized name, just to further enhance the "scientific" flavor.

We should admit that all the calculations made about the car's movements may in fact be true. However, the logical basis and foundation on which these measurements rest-that is, that the car came into being by itself and that it moves by making intelligent decisions-is faulty from the start. But a large segment of the population is unaware of the fine processes involved. Even the briefest explanations are enough to make believe illogical claims, because they are told by "an esteemed scientist." Of course, this scientist is going to be

"smarter" than them and will know more, for which reason, they assume that everything the scientist says is true. Whatever he says and however he thinks must be correct. Different techniques-psychological methods-are used for those with a higher level of education, who recognize the scientific fraud lying beneath the deceit, to make them digest it.

This type of psychological pressure and inculcation, influencing people's subconscious and directing them to a desired way of thinking, is one of the most important aspects of the plan that defends the theory. By adopting and defending the opinions of these so-called "scientists," a person is considered to be up-to-date, knowledgeable, and progressive. If anyone objects to or rejects the theory, he is addressed in quite condescending terms such as *unfashionable, fanatical*, and *backward*. Thus, people lacking the courage to risk being stigmatized and slandered in this way are prevented from reacting unfavorably to this theory and becoming a problem. The result is an effective process of indoctrination, consisting of audaciously fabricated lies and deceit and scenarios which are wholly imaginary, endless fantasies and frauds, deception and illusions, socio-psychological methods of subconscious suppression, plus a variety of other methods of brainwashing-all with the appropriate logistical support from the media and academia. And most people do fall under the influence of this indoctrination.



However, anyone with

only a little intelligence can free himself from the effects of this spell. To unprejudiced eyes, this pompous "theory" developed to explain how the car moves is nothing but nonsense. Because the car is in the hands of an unseen controller, and is not doing anything other than moving according to the commands given to it. And the way to arrive at this conclusion is not through science, but through intelligent consciousness. As we mentioned before, science can analyze only the movements of the car; and once it has carried out this analysis, its job is done. Science is not a guide, only a means. And the way to understanding that the toy car has no mind of its own, but that a greater mind manifests in the car, is via intelligence and conscience.

And so if people are devoid of these qualities, no matter the number of universities from which they may have graduated, regardless of whether they've reached the pinnacle of their academic careers and have dedicated their lives to science, they can descend to such a comically pitiful state that they cannot perceive such an evidently plain truth. They waste their whole lives in the struggle to find intricate but erroneous explanations for events.

This is similar to a man who remains unaware of the Sun because he never lifts up his head. He then travels his whole life, constructing thousands of incongruous theories to explain why the world is illumined for some hours, and then becomes shrouded in darkness. He will hit on any number of complicated theories, all in accord with his degree of cleverness. To find the source of the light, he will make detailed extraordinary links between the objects found on Earth and everyday processes. But since he doesn't have enough intelligence, he won't be able to witness the existence of the Sun up in the sky and will not be able to perceive such a plain truth.

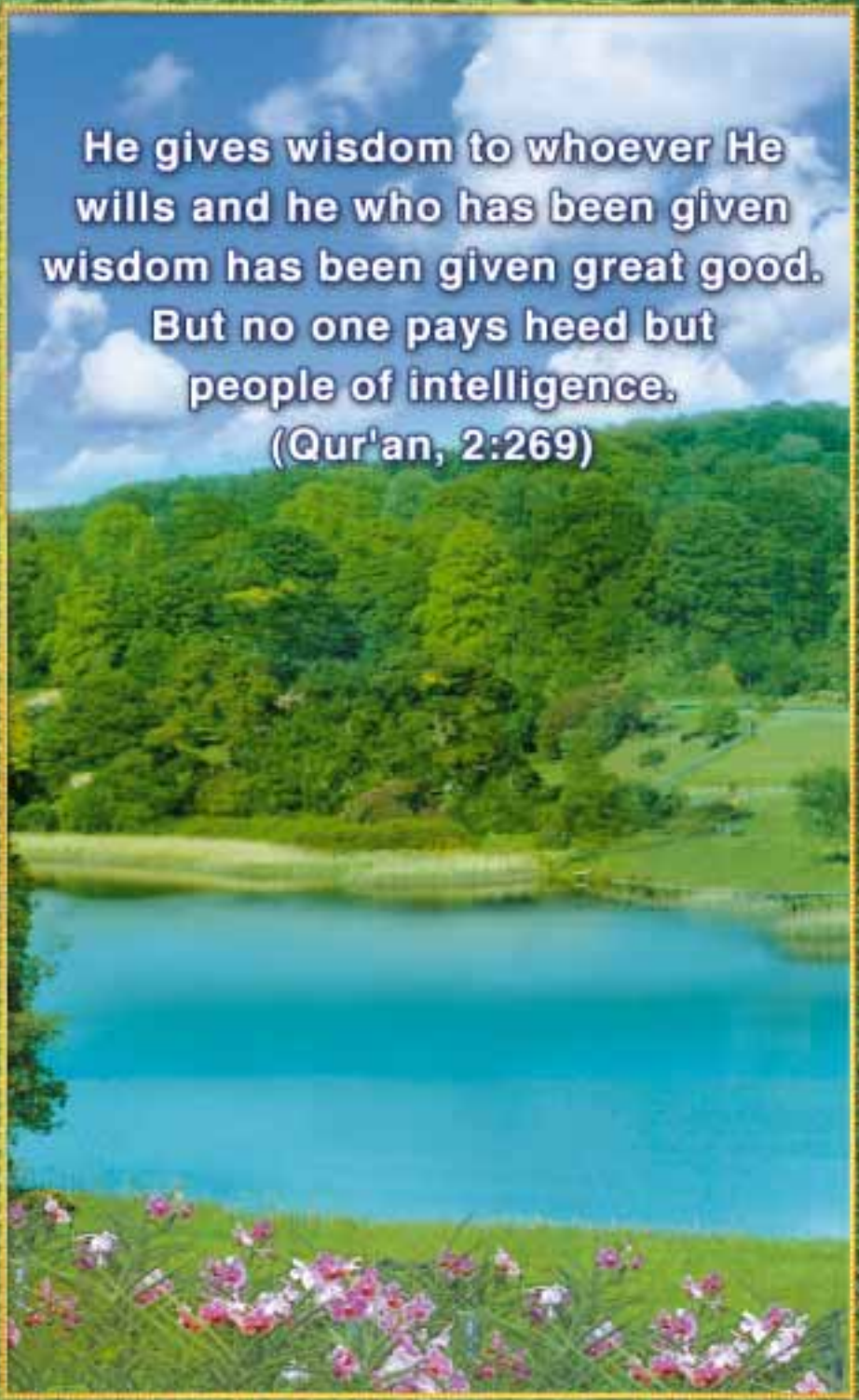
His situation is not far different to that of someone who doesn't understand that the whole universe in which he lives and all of the components of this universe were created by God and are regulated by Him.

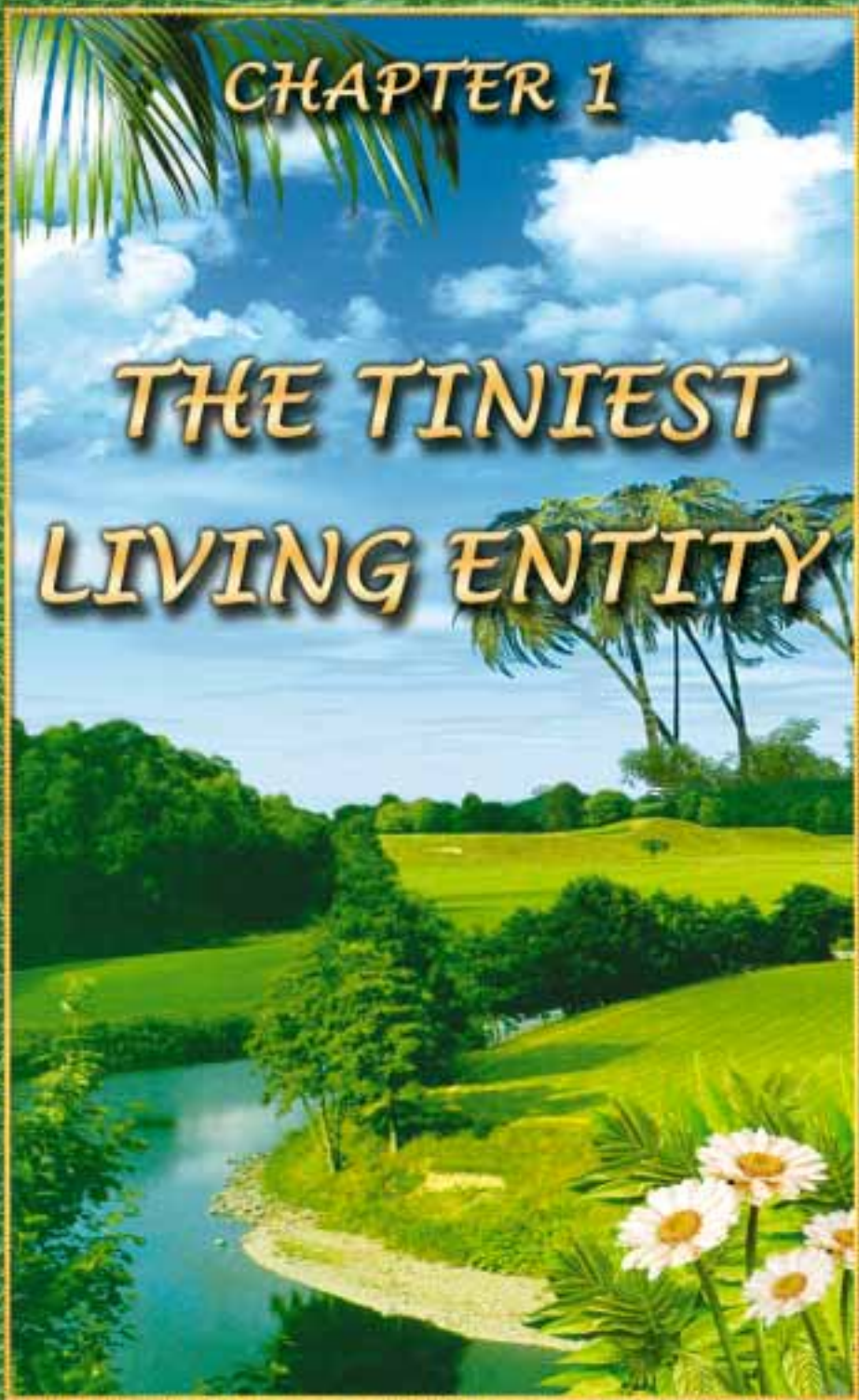
Why cannot these people comprehend such a clear and evident truth?

The secret of this is given to us in the Qur'an: Cleverness is not enough to comprehend the true nature of the universe in which we live; we also need *wisdom*. Only to the degree that a person possesses true wisdom can he arrive at accurate and firm conclusions as a result of what is transmitted to his intellect and attain to fundamental truths. Intellect is a function of the brain; whereas as is explained in the Qur'an, wisdom is a function of the heart. If a person's heart has become hardened and calloused, he will not be able to understand and therefore, will not succeed in reaching God via the things he sees around him. And because he will not have perceived the purpose of his being created, he will only be in the position of an animal slightly smarter than the other animals. He will continue his life like an animal, a creature that does not think or comprehend. The Qur'an speaks of these people whose hearts have become *rusted*-that is, who have become bereft of conscience and common sense-with the following words:

Don't such people realize that they will be raised up on a Terrible Day, the Day humanity will stand before the Lord of all the worlds? (Qur'an, 83:4-6)

Woe that Day to the deniers: those who deny the Day of Reckoning. No one denies it except for every evil aggressor. When Our signs are recited to him, he says, "Just myths and legends of the previous peoples!" No indeed! Rather what they have earned has rusted up their hearts. No indeed! Rather that Day they will be veiled from their Lord. (Qur'an, 83:10-15)


He gives wisdom to whoever He
wills and he who has been given
wisdom has been given great good.
But no one pays heed but
people of intelligence.
(Qur'an, 2:269)


CHAPTER 1
THE TINIEST
LIVING ENTITY



t every location in our bodies, a tiny yet complex living process takes place.

Whenever we examine with a microscope the details of any human organ, we see millions of tiny living entities that have massed together to form that organ and which at every instant are in constant activity. Not just human beings, but all living organisms are formed from aggregates of these tiny microscopic entities called cells.

Cells are divided into two types: those without a nucleus (*prokaryotes*) and those that do possess a nucleus (*eukaryotes*). Bacteria are single-celled organisms that lack a nucleus. Every human, animal and plant cell does contain a nucleus, but they have a different structure. Using the energy from the Sun, with the aid of the chloroplasts found in their cells, plants produce nutrients and oxygen for humans and animals. This book focuses mainly on the human cell, but will touch on plant cells from time to time.

Your body contains more than 100 trillion cells, some so small that one million of them brought together would fit on the tip of a needle. Despite this tiny size, however, the cell is considered by the scientific community as the most complex structure man has ever come across. Though many of its secrets have still not been unraveled, it forms the greatest impasse for evolutionary theory. The Russian evolutionist Alexander I. Oparin expresses this truth, which cannot be overlooked:

> Unfortunately, however, the problem of the origin of the cell is perhaps the most obscure point in the whole study of the evolution of organisms.[1]

Another admission on this topic belongs to Professor Klaus Dose, the Director of the Institute for Biochemistry at Johannes Gutenburg University. In regard to the formation of the living cell,

Dose has this to say:

> In spite of many attempts, there have been no breakthroughs during the past 30 years to help to explain the origin of chilarity in living cells.[2]

With these words Dose admits that evolution cannot explain the origins of living things.

From these admissions, it is quite clear that evolutionary theory stumbles right from its first step and has no possibility of going any further. Because, as is known, the living organism's basic unit is the cell. Consequently a theory that cannot explain how the cell came into being-or, even how the proteins that make up the cell, or how the amino acids that make up the protein came into being-is in no way able to explain how all living beings on Earth were formed.

On the contrary, the cell is one of the most dazzling proofs that the human being was, in fact, *created*.

For the cell to continue its existence, all of the components that carry out the vital processes need to be assembled together in one place. Anyone who claims that the cell came about as a result of so-called evolutionary changes is actually asserting that the millions of different components making up the cell formed at the same time and in the same place-by coincidence. Moreover, all of these parts needed to have come together in a particular order and plan. It's undoubtedly impossible that such an event could have come about by chance. Therefore, a structure like the cell is a clear proof of *creation*.

We can illustrate this with an analogy: The possibility that the cell arose through a series of coincidences, as the theory of evolution proposes, is less likely than if a bomb were to explode in a printing house and an encyclopedia was published as a result. In other words, a living organism coming into being by coincidence is beyond the limits of possibility.

Despite this, evolutionists are still claiming that living things came about by coincidence under the primitive earth conditions, which was then the most uncontrolled of environments. But under no

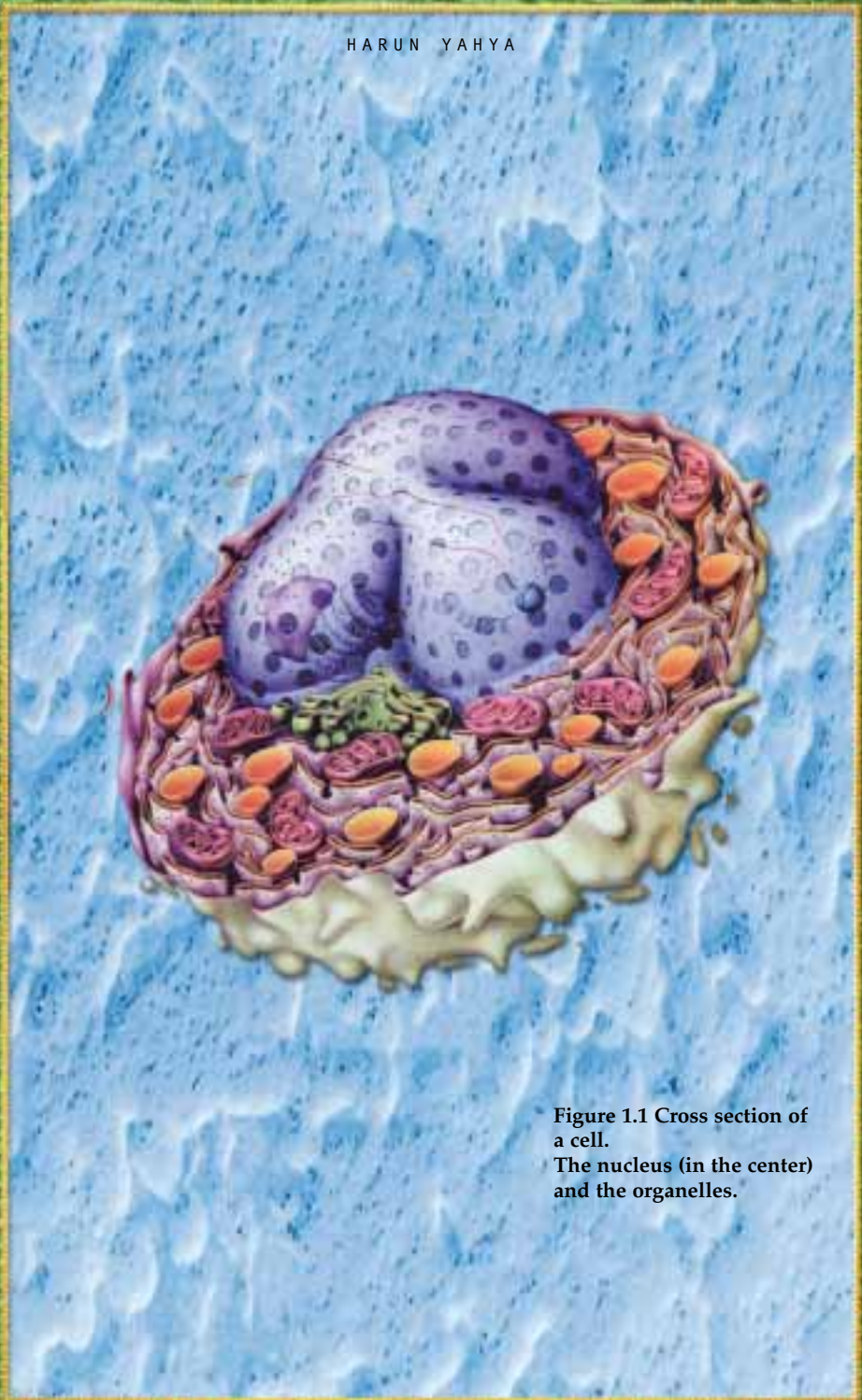


**Figure 1.1 Cross section of a cell.
The nucleus (in the center) and the organelles.**



Figure 1.2 Protein-producing ribosomes; energy-producing mitochondria; DNA, the central information bank; the endoplasmic reticulum that facilitates transport, the Golgi body that acts as a depot, the membrane which controls entry into and exit from the cell; all of the enzymes that have a duty in all reactions in the cell-with all of this planned, endless activity the cell operates like a perfectly run factory. Remember that the cell, harboring all of these processes, is a trillion times smaller than any factory.

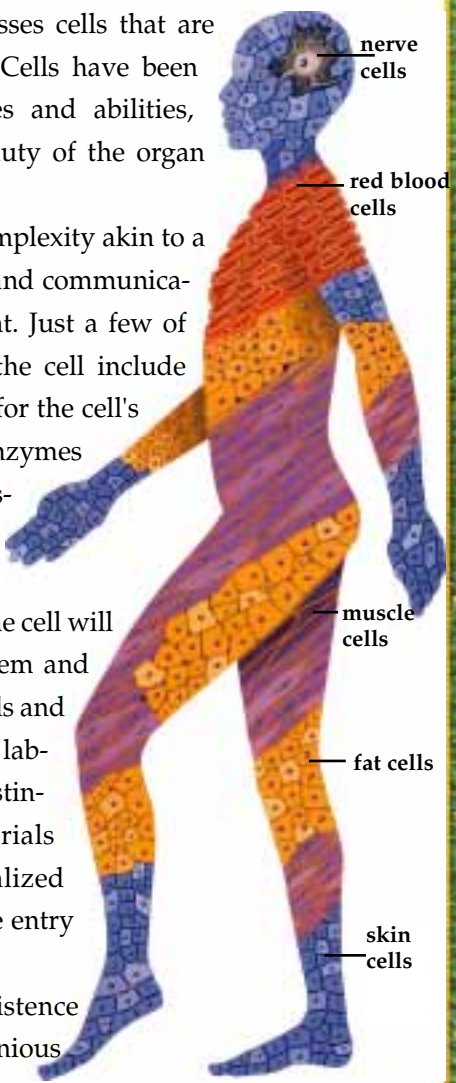
circumstances can this claim ever conform to scientific fact. Even the most basic calculations have proven mathematically that, not only the cell, but even just one of the millions of proteins that compose it, cannot have come into existence as a result of coincidence. This shows that evolutionary theory is based not on intelligent logic, but rather on a collection of imaginary and fantastic scenarios.

Equally amazing as the formation of a single cell is the perfect

harmony and cooperation amongst cells. All of the myriad cells in the human body came about as a result of the division-and subsequent multiplication-of just one cell. And right from the start, all of the knowledge to shape the structure of our bodies as they are now, their design and all of their features were present in the chromosomes located in the nucleus of that very first cell.

All cells resemble one another in their general features. However, each organ possesses cells that are different from any other organ's. Cells have been bestowed with specialized shapes and abilities, depending on the structure and duty of the organ they compose.

One single cell possesses a complexity akin to a large city's in terms of its systems and communication, its transport and management. Just a few of the complex structures found in the cell include powerhouses that produce energy for the cell's use; factories that manufacture enzymes and hormones vital to the cell's existence; a knowledge bank containing all the information needed to manufacture all the products that the cell will produce; a complex transport system and roadways that transfer raw materials and products from one site to another; a laboratory and refinery that can distinguish and separate raw materials coming in from outside; specialized membrane proteins that control the entry and exit of the materials.



Any human's continued existence occurs as a result of the harmonious

cooperation within and amongst the cells that make up the body. The cell works in great harmony with others, while maintaining its own existence within a sensitive balance. By itself, it determines and then produces the materials and energy it needs to maintain this inner balance. Whenever it cannot meet some of its requirements itself, it meticulously selects the necessary materials from outside. It is so selective that without its "permission," no substance, even one found in abundance outside the cell, can accidentally enter through its membrane. There is never to be found an unnecessary molecule or one that doesn't have a purpose in the cell. All substances leaving the cell are under the same tight controls and strict regulations.

In addition to all this, the cell possesses a defense system to protect it from external threats and attacks. Yet despite the number of structures and systems contained within it, and the endless activity that takes place, the average size of a cell is measured not in square kilometers like a modern city, but in only hundredths of a millimeter.

All these amazing processes, which we have mentioned briefly and which we will analyze separately in the rest of the book, take place in such a tiny living thing. That is a miracle in itself.

The World's Most Advanced Factory

The cell's production system can be likened to a factory, the likes of which have not yet been built, and which works with the most advanced technology (Figure 1.2). This imaginary factory is a huge facility, made up of numerous highly developed units each producing different high-tech products. It uses some of these products within its inner structure, and some of them it assembles to produce new production machinery. It exports many of its products as raw materials or machinery. Using up the least amount of energy to produce the highest yield, it is more environmentally friendly than any present factory anywhere on the face of the Earth. It destroys its own waste and thus almost never pollutes its environment.

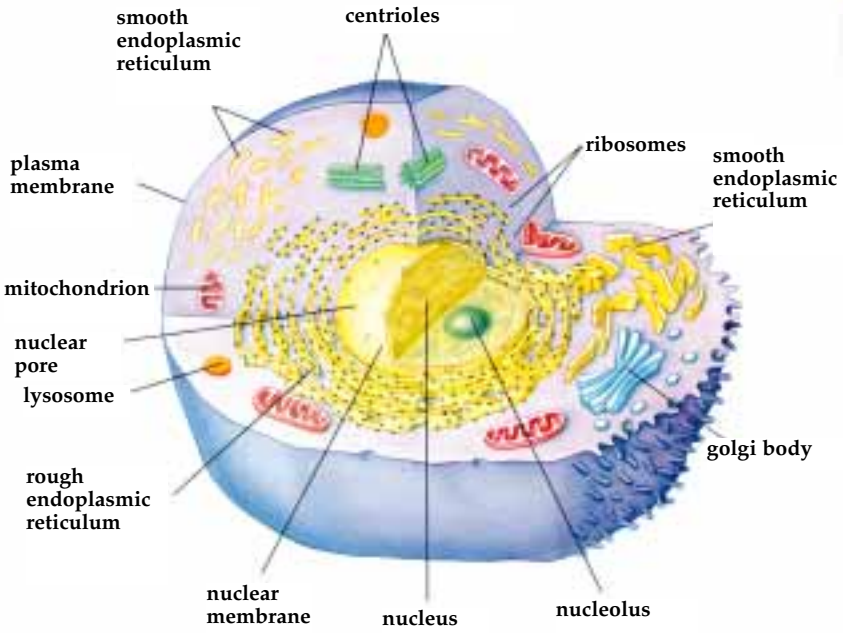


Figure 1.3 Generalized diagram of an animal cell

The factory's production and operating systems have been perfectly designed. The directors, engineers, workers-in short, the entire staff-are made up of robots and computers able to perform their duties faultlessly, and are so advanced that we would encounter them only in science fiction films.

Production in the cell takes place just as this imaginary factory. Specialized and complex protein molecules, called enzymes, take the place of the factory's robots and machines. The cell's knowledge of how to manage itself is stored in a large, helical molecule called DNA, highly specialized for this process and formed from the assembly of numerous atoms.

Now, let's look at the structure of this bewilderingly miraculous molecule and the processes it manages to carry out.

CHAPTER 2

THE SECRET WORLD OF DNA





The building and management of any high-tech product utilizes hundreds of years of the experience and knowledge developed by mankind. The information and experience needed for the construction of the human body, the world's most advanced and complex system, is found in the DNA. The point to be stressed here is that DNA, in all its perfection and complexity, has been in existence from the time of the first human being. The following pages will show more clearly how ridiculous is the evolutionists' notion that this molecule, whose structure and features leave one awestruck, could have come about at random, and by chance.

DNA is carefully protected in a place called the nucleus in the center of the cell. Remember that in a human being (which can comprise up to a trillion cells), the average diameter of a cell is 10 microns (1 micron = 1000th of a millimeter). Now you can see more clearly the size of the structures we're talking about. This miraculous molecule is a clear proof of the perfection and superior artistry in God's creativity. A new scientific field-genetics-has been created to study just the secrets of this molecule, most of which have not yet come to light. Despite all our technological breakthroughs, genetics, considered to be the main focus of science of the 21st century, is still in its infant stage when it comes to solving the mysteries of DNA.

Life in the Nucleus

If we compare the human body to a building, its "floor plan" and design, including all the particulars and technical details, are all spelled out in DNA which is contained in the nucleus (Figure 2.1).

The development of a baby in its mother's womb and after birth

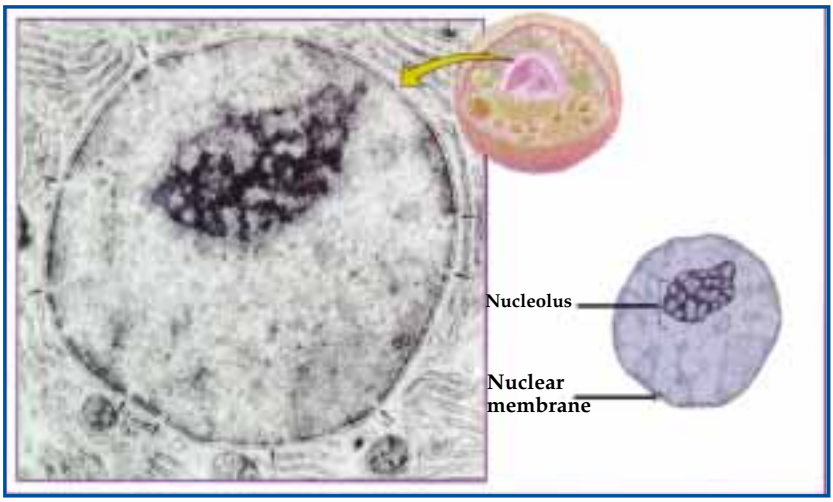


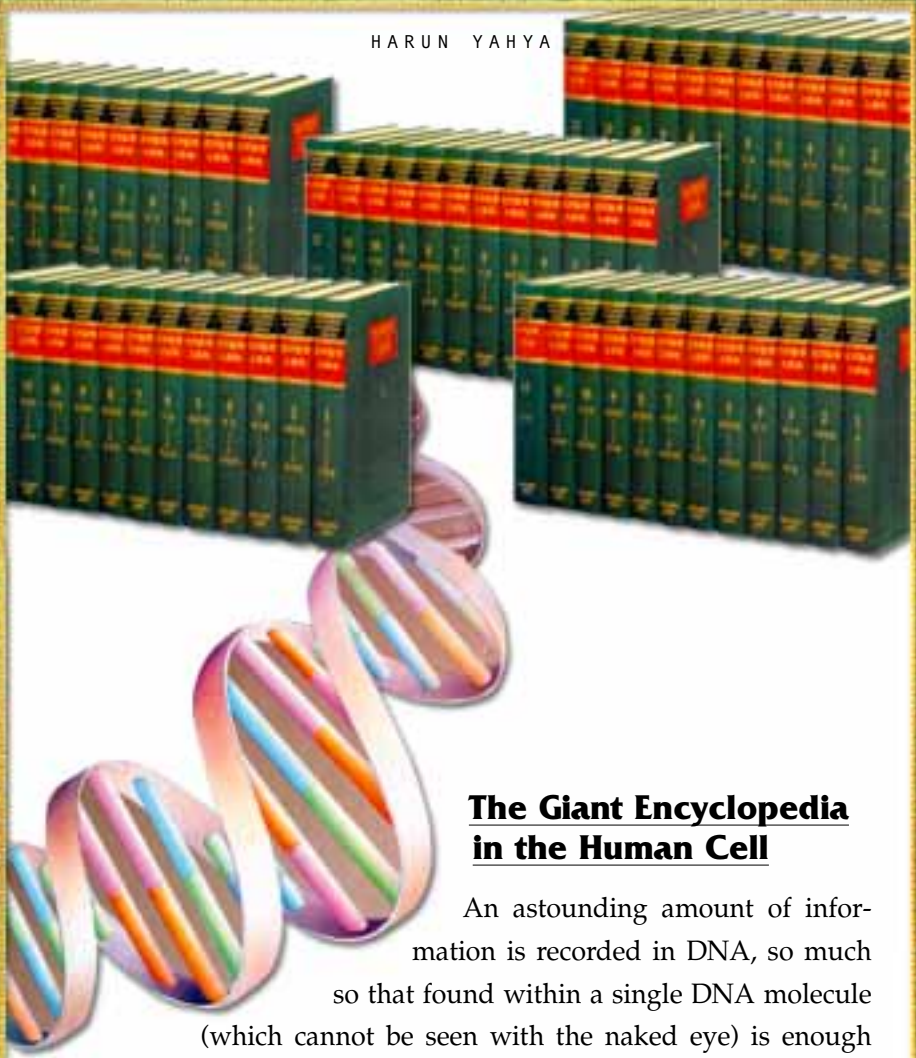
Figure 2.1 Diagram of the nucleus found at the center of the cell

is regulated according to a specific program. The perfect organization of a person's development is expressed in the Qur'an as follows:

> **Does man reckon he will be left to go on unchecked? Wasn't he a drop of ejaculated sperm, then a blood-clot which He created and shaped? (Qur'an, 75:36-38)**

While you were still a fertilized egg cell in your mother's womb, all the characteristics that you would possess in the future were determined by God, and organized, and placed in your DNA. At 30 years of age, the characteristics you possess-such as height, color, blood group, facial features-were all encoded in the nucleus of your single original cell at the time of fertilization, 30 years and nine months earlier.

The information in DNA does not determine only physical features, like the ones just mentioned. It also controls the thousands of different events and systems that take place in the cell and the entire body. For example, even information about whether your blood pressure will be low, high or normal is contained within your DNA.



The Giant Encyclopedia in the Human Cell

An astounding amount of information is recorded in DNA, so much so that found within a single DNA molecule (which cannot be seen with the naked eye) is enough information to fill an encyclopedia of 1,000,000 pages. In the nucleus of one cell is encoded enough information to control all the processes in the human body that would be contained in a giant encyclopedia of 920 volumes. For comparison's sake, one of the world's largest encyclopedias, the 23-volume *Encyclopedia Britannica*, has a total of only 25,000 pages. Within a microscopic cell, in a molecule found in its nucleus, much smaller than the cell itself, is encoded enough data to fill a store of information 40 times larger than the world's most thorough encyclopedia, the likes of which have never

been seen before. It's been calculated that DNA's giant "encyclopedia" would possess up to 3 billion different instructions.

At this point, let's reflect on *possesses instructions*, those two words that fall from our lips so easily. In saying that there are billions of instructions in one cell, what we are talking about is not a computer or a library, but is a tiny sphere, smaller than a 100th of a millimeter and composed of just protein, fat and water molecules. That even one instruction, let alone millions of them, can be maintained within this tiny piece of tissue is absolutely amazing.

To store information today, people use computer technology, considered to be at the forefront of all other technologies. The amount of information that could be stored in a room-sized computer 20 years ago can now be encoded in a tiny microchip. But even this latest modern technology, the result of much effort and knowledge accumulated over many years, hasn't come close to the capacity of even one cell's nucleus for storing information. The following comparison explains the tiny size of DNA, and its amazing capacity for information storage:

> The information necessary to specify the design of all the species of organisms which have ever existed on the planet… could be held in a teaspoon, and there would still be room left for all the information in every book ever written.[3]

How can a helix that we cannot see with our eyes, which is a billionth of a millimeter in diameter and formed from the coming together of atoms, store and remember such a huge amount of information? To this one question, add another: Each of the 100 trillion cells in your body can effortlessly recall one million pages of data, but how many pages of an encyclopedia can you-a conscious, intelligent human being-memorize during your lifetime?

Intelligence in the Cell

You would have to accept that any single cell in your stomach or your ear is more knowledgeable than you. And because it evaluates its

information in the most correct and perfect way, it must also be more intelligent than you.

So what is the source of this intelligence? How does each and every one of the 100 trillion cells in your body possess such incredible intelligence? After all, a cell is just a collection of organic molecules, with no consciousness. Even if you joined together the atoms of all of the elements, in different numbers and permutations to form different molecules, you still could not produce intelligence. Whether these resulting molecules are big or small, simple or complex is irrelevant. From them, you will not be able to produce a conscious mind that can organize anything.

DNA is formed from a particular number of atoms without consciousness, coming together in a certain way, and enzymes that work in harmony, carrying out many conscious processes. How can it perfectly and faultlessly organize the innumerable and complex processes that take place within the cell? The answer is very simple: Intelligence is not to be found within these molecules or within the cell itself, but in the One Who created the molecules and programmed them to carry out these processes.

In short, intelligence lies not in the product itself, but in that product's Creator. Even the most advanced computer is the result of an intellect who has written the program that will run the computer, down to the most minute detail. In the same way, the DNA and the RNA found inside the cell, and the human being who arises from the coming together of these cells, are nothing but the product of their Creator. It doesn't matter how perfect, faultless and effective the product may be. Intelligence always lies in its maker.

Suppose that you run across a highly advanced computer disc, load it and read what appears on the screen, only to find that it contains millions of instructions personalized and unique to you… The first question that would come to your mind would be "Who wrote the instructions, and for what purpose?"

So why not ask the same questions about the cell? If somebody wrote the information on the disc in our example, then who created DNA so perfectly, which is much more superior and more highly advanced; and then placed it carefully in a tiny cell-which is a miracle by itself-without losing any of its characteristics, from thousands of years ago until today? (Never forget, the human brain that manufactured the disc and programmed the instructions inside it is composed of these same cells we are talking about).

What more important questions could there be than who created the cell and why? These cells are on constant duty to let you read these lines, see, breathe, think, in short exist and continue your existence.

The answer to that question is this: Almighty God created all entities in the universe, living or inanimate, from nothing and installed DNA, with all its miraculous properties, into the cell, the building block of all living things. The purpose of human life is to be able to see this truth and serve our Great Lord.

A Few Further Examples

After a plane crash, survivors who are left stranded, will make a giant *X* on the ground in an empty field, so that rescue workers flying overhead may be able to spot them. With their belongings or anything else they can find, they construct a big and obviously artificial cross. Seeing this product of intelligence, rescue workers will realize that there are conscious creatures-in other words, human beings-down there.

When you drive along highways in Turkey, sometimes you come across sentences written in white stones on a hillside, such as *Everything for the nation*. It's quite clear how these messages came to be there. Somewhere nearby, beyond the hill, is an army unit, and they have formed these words with white stones.

Could anyone claim that these words were not written by a conscious, literate soldier, but that they just appeared there by coinci-

dence? Could anyone say that as the stones rolled down the hill, they randomly formed such sentences?

What if a scientist were to declare, "There are trillions of stones in the world, and they have been rolling around for millions of years. Therefore, it is possible that some of these stones could come together at random to form meaningful sentences." Wouldn't even children laugh at him? And on top of that, were he to employ scientific language and give scientific explanations with probability calculations, wouldn't people be suspicious of his mental capacity? Forget the entire sentence. There's no chance that even a neat letter could be formed by happenstance. Even if you saw merely that first capital written neatly atop a hill, you would wonder why somebody wrote it there.

With these examples, we are trying to say that if there exists the slightest degree of planning anywhere, then there must be a conscious intellect behind it. No product of an intellect can ever appear by chance. If you roll a few white stones down a hill millions of times, you wouldn't even get a straight letter forming. If a letter were to appear, everyone would have to agree that there can be no letter without a scribe.

The human body, however, has a structure a trillion times more complex than any sentence spelled out in rocks, and there is absolutely no chance that this complex structure could have come about by "coincidence." Therefore it is God Who perfectly planned and faultlessly organized the human being, its cells, and its DNA. To deny the existence and power of God, the Creator of the heavens and the Earth and everything in between, is the greatest possible senselessness and impertinence. It is great disrespect towards the Possessor of that intelligence and power.

But sadly, many people who can instantly grasp the impossibility of stones bringing words together by chance, can listen, without objection, to the deceitful claim that a molecule like DNA, which can

perform such amazing tasks, could have formed as a result of a series of coincidental joinings of single atoms. Just like someone who's been hypnotized and imagines himself to *be* a door, a tree or a lizard when suggested so.

The Language of DNA's Encyclopedia

The most important means of communication between individuals and generations is with words, which are represented by letters. English is a language written with 26 letters, in other words a code of 26 symbols. These symbols form words, and words form sentences. This code enables the communication and storage of information.

The language of the cell is similar: All of a human being's physical features have been codified and stored in the nucleus of the cell, where the cell can refer to again by using this code. This code is the language of the director molecule, the DNA, formed from four special bases called *nucleotides*, each represented by one of the letters A, T, G, and C. These bases, by coming together one after the other in a meaningful manner, form the DNA molecule (Figures 2.2 and 2.3).

Information in the nucleus' data bank is stored in this way. In the interests of simplicity when explaining the cell's information coding system, we'll keep using these letters to represent the nucleic acid molecules making up DNA.

These letters form opposite pairs and form one rung of the ladder. These rungs are joined together to form genes. Every gene, which is just one section of the DNA molecule, controls a particular feature in the human body. Innumerable characteristics such as height, eye color, and shape of nose, ears, and skull come about via commands given by the relevant genes. We can compare these genes to the pages of a book, which bears various writings made up from the four letters A, T, C and G.

In the DNA of human beings are found about 200,000 genes, each made up of between 1,000 and 186,000 nucleotides, which come

together in different orders depending on the corresponding protein they make. These genes contain the codes for approximately 200,000 different proteins with various duties in the body, the production of which is again controlled by genes.

Yet the amount of information contained in these 200,000 genes represents only about 3% of the total information contained in DNA. The remaining 97% has remained a mystery to this day. Recent research has shown that this mysterious remaining 97% contains vital information about mechanisms that facilitate highly complex activities, and information about how the cell continues its existence. However, scientists still have a long way to go.

Genes are found within chromosomes. There are 46 chromosomes in each cell in the human body (excluding the generative cells; see Figure 2.5). Comparing each chromosome to a volume comprised of genes, then we can say that in each cell there is a 46-volume *cellular encyclopedia* that contains all the information relevant to human beings. Using our earlier analogy, this is equivalent to the amount of

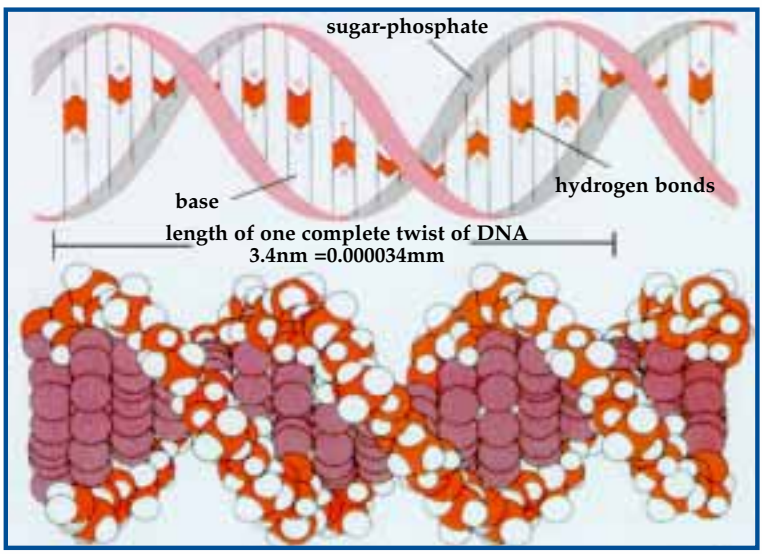


Figure 2.2

information stored in a 920-volume *Encyclopedia Britannica*.

In each person's DNA, the order of the letters is different. This is why all the people who have ever lived have been different from each other. Each human being's basic anatomical structure and processes are the same. But despite the fact that each person arises from the division of just one cell and possesses the same basic structure, each individual is uniquely created, with such fine differences and with such detail that there have been billions of distinctly different people.

All the organs in your body are built according to a planning scheme outlined in your genes. To give a few examples from a gene map constructed by scientists, the skin is regulated by 2,559 genes; the brain by 29,930; the eyes by 1,794; salivary glands by 186; the heart by 6,216; the breast by 4,001; the lungs by 11,581; the liver by 2,309; the intestines by 3,838; the skeletal muscles by 1,911 and the blood cells by 22,092 genes.

The order of the letters in the DNA determines the structure of any human being, down to the smallest detail. In the DNA of just one cell are found characteristics like height, eye, hair and skin color, the plans of 206 bones, 600 muscles, 10,000 auditory and 2 million optical nerve networks, 100 billion nerve cells, and blood vessels 100,000 kilometers (60,000 miles) long and 100 trillion cells.

If even one single letter cannot come about without a scribe to write it, then how can billions of meaningful "letters" arise inside a human cell? How did these letters come together, one after the other, in meaningful patterns to comprise the plan of a unique and complex human body? Were there even the slightest flaw in the order of these letters, you could find your ear where your stomach is supposed to be, or your eyes on your heels, and have to live as a freak. The secret of your being a regular person is the faultless order in which the billions of letters are arranged in your DNA's 46-volume encyclopedia. Obviously, these letters can't possibly realize such an arrangement of

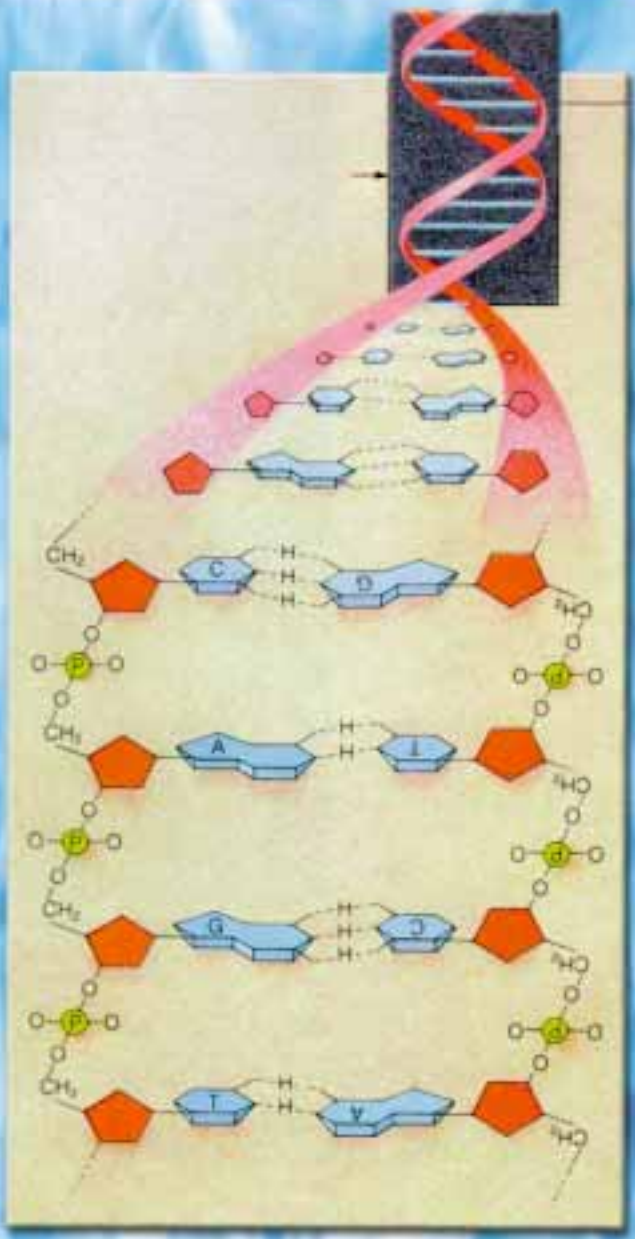


Figure 2.3
The arrangement of the adenine, thymine, cytosine, and guanine bases in DNA. The bases are paired to each by hydrogen bonding, and the order of the base pairs makes up the language of life.



Figure 2.4
The arrangement of atoms in the DNA helix, whose diameter is only a millionth of a millimeter

their own accord. These genes, which we have been calling letters, have been created by God, the Master of superior intelligence and infinite knowledge. This extraordinary arrangement, which renders the word "coincidence" meaningless, is a result of God's perfect creativity:

He is God-the Creator, the Maker, the Giver of Form. To Him belong the Most Beautiful Names. Everything in the heavens and Earth glorifies Him. He is the Almighty, the All-Wise. (Qur'an, 59:24)

DNA Defies the Notion of Coincidence

Mathematically, there is no chance for coincidence in the formation of DNA's encoded information. The possibility that even one of the 200,000 genes found in DNA could have come about by chance-let alone the DNA molecule itself, made up of millions of sections-has been completely invalidated. An evolutionary biologist, Frank B. Salisbury, has this to say:

A medium protein might include about 300 amino acids. The DNA gene controlling this would have about 1,000 nucleotides in its chain. Since there are four kinds of nucleotides in a DNA

> chain, one consisting of 1,000 links could exist in 4^{1000} forms. Using a little algebra (logarithms) we can see that $4^{1000}=10^{600}$. Ten multiplied by itself 600 times gives the figure 1 followed by 600 zeros! This number is completely beyond our comprehension.[4]

Even if we assume that the surrounding environment contains all of the necessary nucleotides, plus the complex molecules and binding enzymes needed to connect them together, the probability that these nucleotides will ever bind together in the desired order is 1 in 4^{1000}-or in other words, 1 in 10^{600}. In short, the possibility of an average human protein coming about by itself, is 1 out of a number resulting from putting a 1 followed by 600 zeros. This number, beyond astronomical in practical terms, means zero probability. Such an arrangement could therefore have come about only under the control and knowledge of an intelligent and conscious power, which belong to Almighty God, the Creator of the heavens and the Earth.

Take this sentence you are reading right now. If somebody claimed that the letters-each with the proper size and font-came together by themselves and randomly formed that sentence, what would you say? Obviously, you would find such a claim highly illogical, and reply that this sentence definitely originated from one who was most intelligent and knowledgeable. And the case of DNA is no different.

Francis Crick is the biochemist who co-discovered the structure of DNA, and won the Nobel Prize for his work in this area. At first a persistent evolutionist, Crick wrote the following after he witnessed DNA's miraculous structure:

> An honest man, armed with all the knowledge available to us now, could only state that, in some sense, the origin of life appears at the moment to be almost a miracle.[5]

According to Crick, life could never have appeared on this Earth by chance. So even one of the greatest specialists in DNA, and an evolutionist to boot, gives no credence to the notion of coincidence in creation.

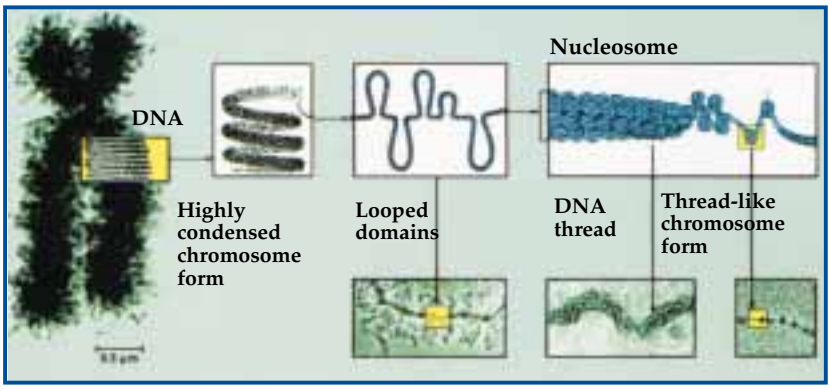


Figure 2.5
The packaging of DNA inside the chromosomes. One DNA molecule is found in each chromosome. The total length of one DNA molecule in any one cell is about one meter. The total thickness of the chromosome is 1 nanometer-that is, a billionth of a meter. The packaging of the one-meter-long DNA molecule into an area a billionth of its size, the constant decoding of this DNA molecule, the copying of the DNA at the proper time, and the absence of any complications during all of these processes are beautiful examples of God's perfect creation.

The information in DNA, comprised from five billion bases, comes about as a result of the unique and meaningful order of the A, T, G and C letters. But not a single mistake can be made in this order. In an encyclopedia, a mistyped word or letter isn't too important and can be ignored. It may not even be noticed. In contrast, an error in any rung of the DNA ladder-for example, a mistake in the coding of one letter in the 1, 719, 348, 632nd rung-results in frightful consequences for the cell and therefore for the human. For instance, leukemia, the blood cancer seen in children, results from such a mistake in coding.

To be accurate, we shouldn't really say a *mistake in coding*. Just like everything else that exists, DNA has been created by God, and any "mistakes" we may perceive arise due to a particular wisdom, a divine purpose. The coding defect that brings about cancer has been specially created to show man his utter powerlessness and weakness-to remind us of the fine, delicate balance within which we've been created and what problems can result with even the slightest deviation.

CCCTGTGGAGCCACACCCTAGGGTTGGCCAATCTACTCCCAGGAGCAGGGAGGGCAGGAG
CCAGGGCTGGGCATAAAAGTCAGGGCAGAGCCATCTATTGCTTACATTTGCTTCTGACAC
AACTGTGTTCACTAGCAACTCAAACAGACACCATGGTGCACCTGACTCCTGAGGAGAAGT
CTGCCGTTACTGCCCTGTGGGGCAAGGTGAACGTGGATGAAGTTGGTGGTGAGGCCCTGG
GCAGGTTGGTATCAAGGTTACAAGACAGGTTTAAGGAGACCAATAGAAACTGGGCATGTG
GAGACAGAGAAGACTCTTGGGTTTCTGATAGGCACTGACTCTCTCTGCCTATTGGTCTAT
TTTCCCACCCTTAGGCTGCTGGTGGTCTACCCTTGGACCCAGAGGTTCTTTGAGTCCTTT
GGGGATCTGTCCACTCCTGATGCTGTTATGGGCAACCCTAAGGTGAAGGCTCATGGCAAG
AAAGTGCTCGGTGCCTTTAGTGATGGCCTGGCTCACCTGGACAACCTCAAGGGCACCTTT
GCCACACTGAGTGAGCTGCACTGTGACAAGCTGCACGTGGATCCTGAGAACTTCAGGGTG
AGTCTATGGGACCCTTGATGTTTTCTTTCCCCTTCTTTTCTATGGTTAAGTTCATGTCAT
AGGAAGGGGAGAAGTAACAGGGTACAGTTTAGAATGGGAAACAGACGAATGATTGCATCA
GTGTGGAAGTCTCAGGATCGTTTTAGTTTCTTTTATTTGCTGTTCATAACAATTGTTTTC
TTTTGTTTAATTCTTGCTTTCTTTTTTTTTCTTCTCCGCAATTTTTACTATTATACTTAA
TGCCTTAACATTGTGTATAACAAAAGGAAATATCTCTGAGATACATTAAGTAACTTAAAA
AAAACTTTACACAGTCTGCCTAGTACATTACTATTTGGAATATATGTGTGCTTATTTGC
ATATTCATAATCTCCCTACTTTATTTTCTTTTATTTTTAATTGATACATAATCATTATAC
ATATTTATGGGTTAAAGTGTAATGTTTTAATATGTGTACACATATTGACCAAATCAGGGT
AATTTTGCATTTGTAATTTTAAAAAATGCTTTCTTCTTTTAATATACTTTTTTGTTTATC
TTATTTCTAATACTTTCCCTAATCTCTTTCTTTCAGGGCAATAATGATACAATGTATCAT
GCCTCTTTGCACCATTCTAAAGAATAACAGTGATAATTTCTGGGTTAAGGCAATAGCAAT
ATTTCTGCATATAAATATTTCTGCATATAAATTGTAACTGATGTAAGAGGTTTCATATTG
CTAATAGCAGCTACAATCCAGCTACCATTCTGCTTTTATTTTATGGTTGGGATAAGGCTG
GATTATTCTGAGTCCAAGCTAGGCCCTTTTGCTAATCATGTTCATACCTCTTATCTTCCT
CCCACAGCTCCTGGGCAACGTGCTGGTCTGTGTGCTGGCCCATCACTTTGGCAAAGAATT
CACCCCACCAGTGCAGGCTGCCTATCAGAAAGTGGTGGCTGGTGTGGCTAATGCCCTGGC
CCACAAGTATCACTAAGCTCGCTTTCTTGCTGTCCAATTTCTATTAAAGGTTCCTTTGTT
CCCTAAGTCCAACTACTAAACTGGGGGATATTATGAAGGGCCTTGAGCATCTGGATTCTG
CCTAATAAAAAACATTTATTTTCATTGCAATGATGTATTTAAATTATTTCTGAATATTTT
ACTAAAAGGGAATGTGGGAGGTCAGTGCATTTAAAACATAAAGAAATGATGAGCTGTTCTTAAT

Figure 2.6
The DNA code for the beta-globin gene, one part of the hemoglobin gene that allows for the transport of oxygen. The code is read just as one would read an English sentence, from left to right. If even one letter in this code is wrong, a completely faulty protein results. The genetic code of just one part of the hundreds of thousands of proteins is of the utmost complexity, as can be seen from the figure above. For a complete human body, billions of these codes are needed. Such perfect instructions could never have come about without an intelligent being to create them.

Self-Replication of DNA

Cells multiply by dividing. Thus a human body starts out as a single cell, which then divides to form two and then 4, 6, 8, 16, 32 cells and so on.

But after this process of division, what happens to DNA? Any one cell contains only one helix of DNA. But clearly, the newly divided cells will each need their own DNA. To overcome this problem a new series of processes takes place, each step of which is a miracle in itself. Just before the cell divides, its DNA is replicated, so that each new cell receives an exact copy of the original.

Microscopic observations reveal that before the cell divides, it must reach a certain size. Once it does, the process of division is initiated. As the cell begins to widen into the shape required for division, the DNA starts to replicate itself.

What this means is that the cell as a whole "decides" to divide, and its different parts begin to act accordingly. Clearly, the cell doesn't possess the knowledge to carry out such a cooperative process successfully. The process of division starts with a silent command, and with the DNA leading the way, the rest of the cell follows suit.

In order to replicate itself, DNA first separates into two opposite strands-an event that takes place in a very interesting manner. The DNA molecule resembles a spiral ladder, whose rungs open up like a zipper. The DNA now separates into two strands, and each of the two opposite, incomplete strands then completes itself with materials found in the cellular environment. In this way are produced, two new DNA molecules (Figure 2.7). At each stage of the process, specialized proteins called enzymes, operating like highly advanced robots, carry out their respective duties. To explain the process completely would take many pages, since what seems a very simple procedure at first glance is actually made up of innumerable steps that are highly complex.

The new DNA molecule resulting from this pairing is checked



Figure 2.7
Replication of the DNA helix. With the help of many enzymes, the helix unwinds and opens up like a zipper. Then nucleotides are secured from the surroundings, and pairs are formed with the appropriate base on each strand. In this way are formed two new helixes of DNA, each an exact copy of the other.

over and over again by control enzymes. If there is a mistake-and any mistakes could prove fatal-it is quickly identified and repaired. The faulty segment is removed and a corrected one brought and put into place. All of these processes occur at dizzying speeds. For example 3,000 base pairs are produced every minute, while each rung of the ladder is gone over by enzymes on duty and then repaired, if need be.

External factors can cause mistakes to occur at a higher rate than normal in the synthesis of the new DNA molecule. In this case, ribosomes in the cell begin to manufacture repair enzymes according to the command given by the DNA. In this way, the DNA is protected, and the next generation of cells is preserved.

Cells, just like the human beings they make up, are born, multiply and die. But the life span of the cell is much shorter. For instance, most of the cells that made up your body six months ago are no longer alive today. You still exist because those old cells divided and left new cells to take their place. For human life to continue, it's vitally important that such processes as the multiplication of cells and the copying of the DNA be carried out flawlessly. In fact, the replication process takes place so perfectly that the rate of error is only one base pair in 3 billion. And before it can cause the body any problems, this single mistake is fixed by control mechanisms of a higher order.

So all day, without your even knowing it, innumerable processes,

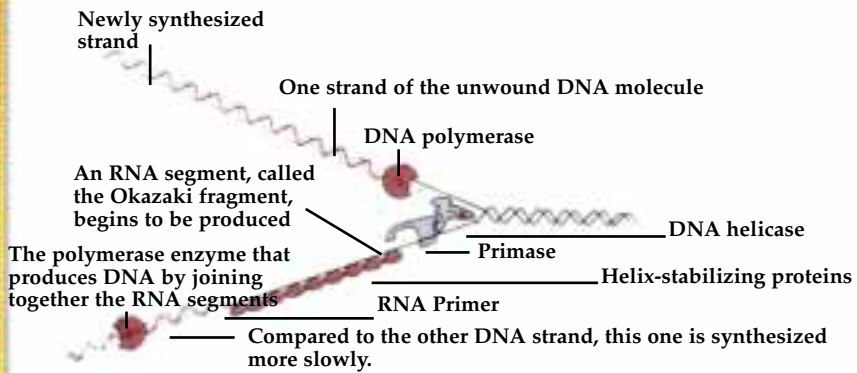
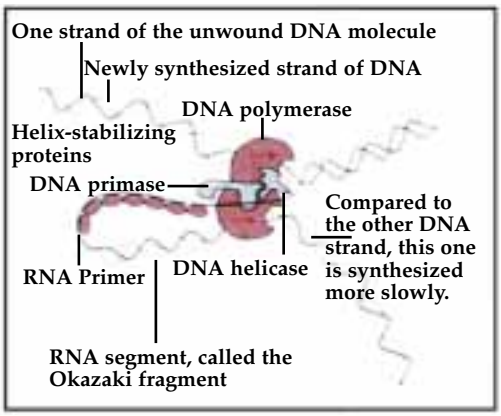


Figure 2.8 The organization of the enzymes (proteins) that work during the process of replication. Differently structured enzymes with different duties clamp together and work as a team. The DNA helicase enzyme (in the center of the diagram) unzips the DNA molecule. DNA polymerase then adds the correct nucleotides to the incomplete strand of DNA left over at the top, synthesizing a new DNA molecule. The DNA polymerase moves continuously along the top strand while the DNA is being copied. Because the other DNA strand is an exact mirror image of the initial one, the polymerase enzyme working on this strand needs to move in the opposite direction.

The events that take place on the second strand and the way in which the polymerase moves along it, are very different. As the DNA unwinds to form two single strands, there are primase enzymes found next to the DNA helicase. On the second strand, this enzyme starts building ten-nucleotide segments, called RNA primers, at intervals of about 200 nucleotides apart. DNA polymerase enzyme then starts filling in these gaps with small fragments, called Okazaki fragments, using these RNA primers as starting points. In this way the second DNA segment is formed. But the one difference is that on this DNA is left small RNA primer segments. DNA repair enzymes (e.g., uracil DNA glycosylase, AP endonuclease, etc.) that come into play at a later stage break off these RNA primer segments and replace them with DNA nucleotides.

In the course of all these processes, helix stabilizing nucleoid proteins stabilize duplex DNA against denaturation. As a result of this series of processes, the second DNA is synthesized.

Figure 2.9 Enzymes work together in the base pairing of DNA. This combined structure resembles a sewing machine, composed of proteins, that works on the DNA from start to finish and produces a copy of it.
Right: This collective mechanism in its active state. In reality, the structure shown in this figure is three-dimensional.



controls, and precautions take place in your body with astonishing meticulousness and sense of responsibility to keep you alive without any problems. God has provided you with innumerable atoms and molecules, from the tiniest to the largest, from the simplest to the most complex, so that you can live your life in the most healthy fashion. Isn't this favor and blessing alone enough to make man continuously grateful? Or must people wait for a problem to arise in this faultless system, before they come to their senses?

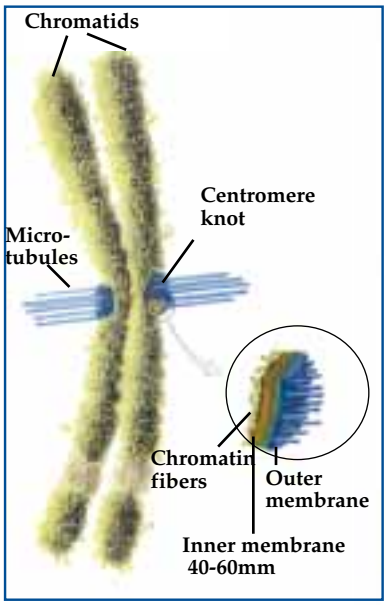


Figure 2.10
Duplication of chromosomes during cell division. Each chromosome is copied and thus divides into two. The figure shows two sister chromatids just before they separate. At the last stage of division, the chromosomes move in opposite directions along the microtubules to which they are bound.

Most interesting is that the enzymes facilitating the production of DNA and the regulation of its structure are all encoded within the DNA itself. In fact, they are proteins synthesized under the DNA's command and control. This system is so amazingly intricate that it's absolutely impossible for it to have arisen by a series of coincidental steps. Because in order for the enzyme to exist, the DNA must exist, but in order for the DNA to exist, so must the enzymes. And for both of them to exist, the cell must exist in its entirety, from the cell membrane inward to all its complex organelles.

The theory of evolution proposes that organisms developed "step by step" as a result of "beneficial coincidences." But this DNA-enzyme paradox absolutely refutes it, since both the DNA and the enzymes must be in existence at the same time. This is blatant evidence of God's existence.

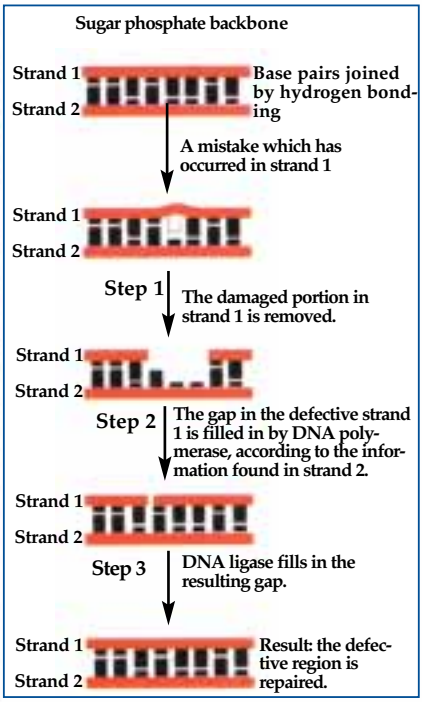


Figure 2.11
DNA control mechanisms identify and repair any mistakes arising in the DNA as a result of external factors. These mechanisms are made up of enzymes produced according to instructions found within the DNA itself. There may be different types of repair mechanisms, but basically, the damaged nucleotide is repaired according to information contained in the opposite strand's corresponding nucleotide. This process shown in the figure above basically consists of three steps:
1) After being identified by an enzyme called DNA nuclease, the damaged portion of the DNA strand is removed. This results in a gap in the DNA strand.
2) Another enzyme, DNA polymerase, adds the necessary nucleotide according to the information contained in the undamaged strand of DNA.
3) The repair of the DNA is not quite finished. The gap resulting in the sugar phosphate backbone from this repair mechanism is filled in by an enzyme called DNA ligase.

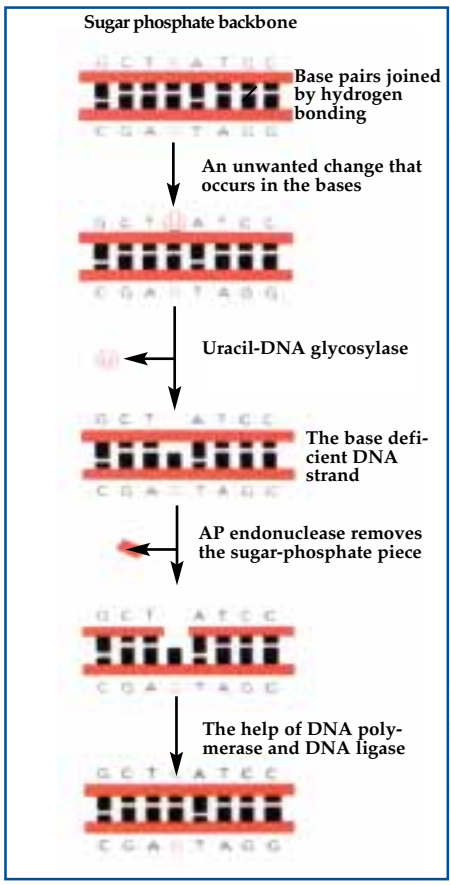


Figure 2.12
An unwanted event that occurs from time to time: the incorrect copying of the DNA molecule. As can be seen in the first diagram, a uracil (U) has been placed instead of a cytosine (C) in the fourth base position of the DNA. An enzyme called Uracil-DNA glycosylase, which has the duty of repairing only this type of mistake, removes the uracil from the DNA strand. AP endonuclease removes the sugar phosphate group from this area. DNA polymerase and DNA ligase then attach the relevant nucleotides in their place.

Mutations:
The Last Resort of the Evolution Falsehood

When Darwin first proposed his theory, he couldn't explain the reason for variation within species, nor the logic behind one of his own conjectures that "one species is transformed into another." He couldn't have explained it in any case, because he didn't know about the existence of DNA. Darwin knew nothing of genetics, biostatistics, or microbiology. These scientific fields did not exist in Darwin's day, so there was no way he could have known of them. With the facilities available at the time, he dissected various organisms, and from similarities in their anatomy, but with no ability to closely study the cell, he arrived at unscientific conclusions that were, for the most part, products of his imagination.

Thanks to recent technology, people today are aware of the complex mechanisms present in the cell. And it has become understood that these perfect mechanisms cannot have come about by themselves, or as a result of chance. All of this complex system's components had to be in the same place at the same time, with nothing more and nothing less. As we mentioned, thousands of different sub-systems make up this system. Thus for this faultless system to have come about at the same time, in the same place, there remains only one explanation: *creation*. Advances in scientific knowledge and technology have proven over and over how the theory of evolution is a great lie, put forward to deny the fact of creation and thereby, turn people away from the path of God.

Evolution is not a scientific fact, but the imaginary foundation on which all ideologies depend that fall into the mistake of denying creation. Whatever the cost, their lie must go on, and so they found a solution in another lie: mutations-which, evolutionists proposed, advanced the development of primitive species and the emergence of entirely new ones.

Mutations are changes that can arise in the organism's DNA as a result of external factors like chemical agents, x-rays, and radiation. But such changes can never bring about the formation of a new species, because mutations are deficiencies or changes in the *order* of the genetic information. They cannot add anything new to the genetic mix. Information pertaining to any living thing has been recorded in the genetic code of that particular creature. Consequently any genetic mutation will cause a deliberate alteration in that species' number, color or type of existing organs and structures. They can never result in a brand-new organ or feature. What's more, 99.9% of mutations are harmful, and in fact may be lethal for living things. The remaining 0.01% either have no effect, or their damage cannot swiftly be determined. Apart from viruses, whose genetic and physiological structures are deliberately adjusted to tolerate mutations, the question of *beneficial* mutations never arises.

DNA's structure is highly advanced in terms of the information it contains and in the way it can store it. Obviously, any external tampering will ruin such an advanced system. Any random change to a device with highly complex mechanisms will not improve the device but on the contrary, will destroy it.

Or to use another analogy, an earthquake cannot build a city, it will level it-just like the effects of a mutation on DNA. Let's assume that a beneficial mutation does exist. But for every beneficial mutation, there are thousands of harmful ones, and so the overall effect is going to be the species' deterioration or extinction. Today's world should have been full of freaks who have undergone minor mutations: fish hatched with three eyes, or cats that give birth to five-legged kittens. But just as mutations are harmful, they are also extremely rare. The changes that mutations could result in are like those experienced in Hiroshima, Nagasaki or Chernobyl.

In the hopes of proving the theory of evolution, scientists have carried out experiments that result in fruit flies that, having been sub-

jected to radiation, have legs coming out of their heads. To this day, no beneficial mutation has been observed. All have been harmful. Dr. Mahlon B. Hoagland, author of the book *The Roots of Life*, expresses this as follows:

> You'll recall we learned that almost always a change in an organism's DNA is detrimental to it; that is, it leads to a reduced capacity to survive. By way of analogy, random additions of sentences to the plays of Shakespeare are not likely to improve them! …The principle that DNA changes are harmful by virtue of reducing survival chances applies whether a change in DNA is caused by a mutation or by some foreign genes we deliberately add to it.[6]

Richard Dawkins, one of the best-known evolutionists of our time, was asked during an interview if any mutations were known to be beneficial. He could not answer the question, but openly showed his discomfort in not being able to give any facts to support evolution.[7]

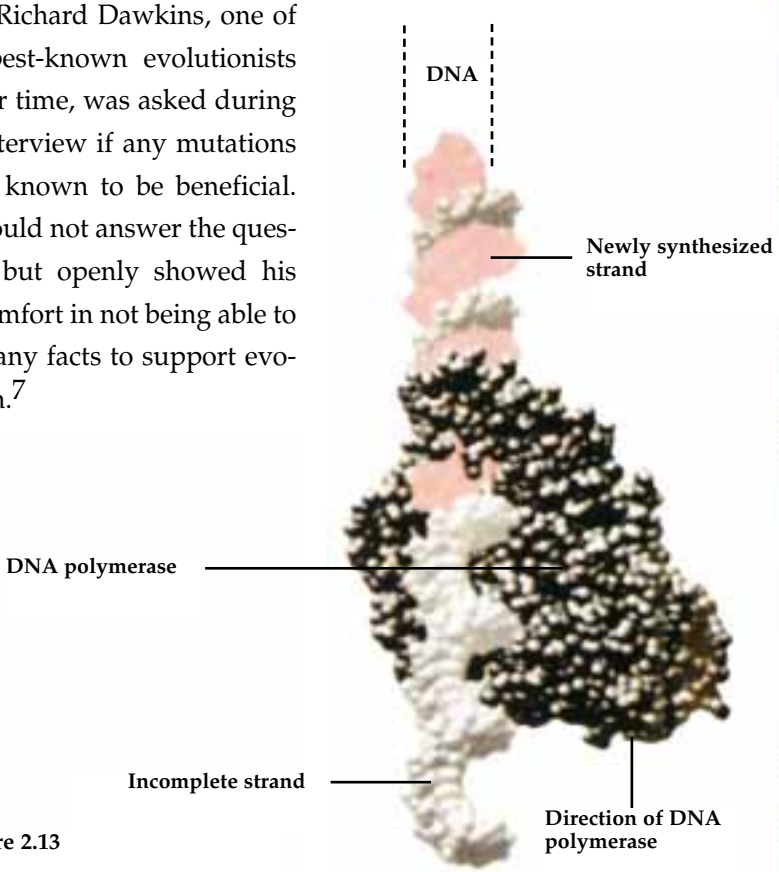


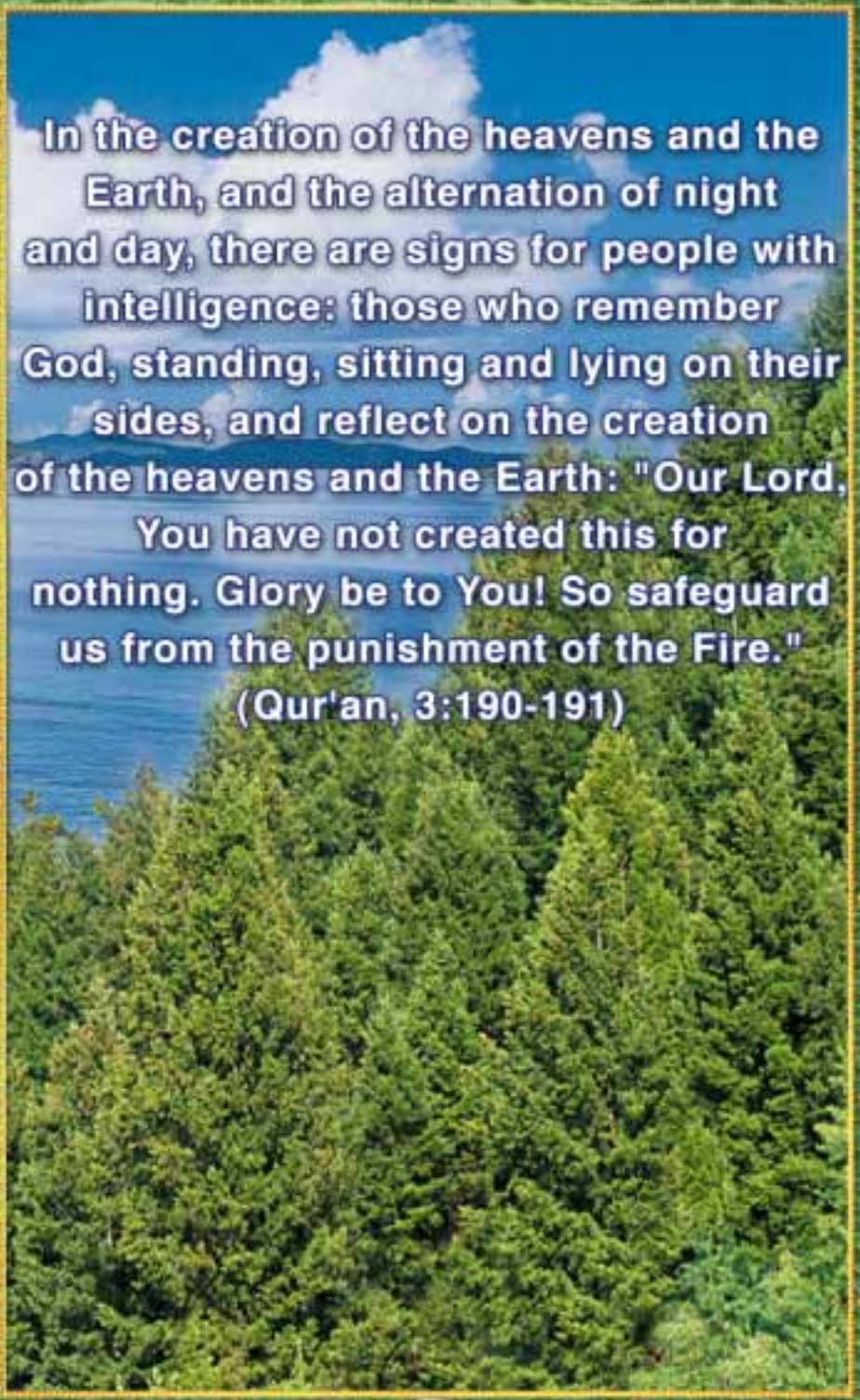
Figure 2.13

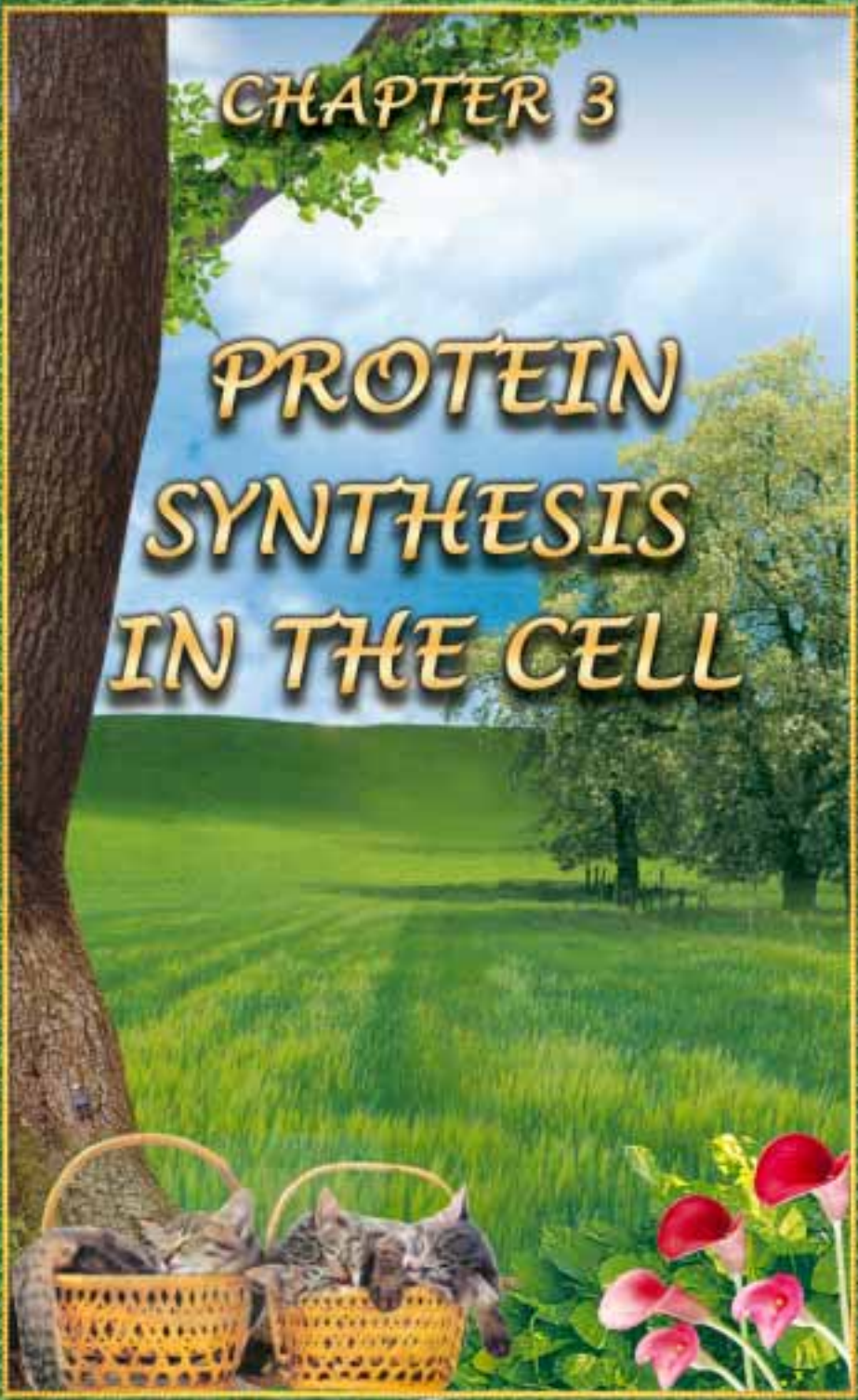
Another point worth noting is that for mutations to be passed on to future generations, they must arise in the generative cells. Any change in the body cells or organs alone will not be passed along. For example, if a woman loses her finger, her future baby will not lose his and will not therefore be born without a finger. Even if, for a thousand generations every monkey born is taught to walk on two legs, this ability trait will not be passed on when the 1001st generation is born. Another example, say you cut off the left arm of a particular species, the 10th generation will still be born with a left arm, there being no chance that the arm will disappear. In conclusion, mutations cannot be the source of variation in species. DNA's perfect organization can only be a result of a special creation. And the Owner of this superior power of creation is God. The Qur'an tells us about God's perfect creation as follows:

> **It is God Who made the Earth a stable home for you and the sky a dome, and formed you, giving you the best of forms, and provided you with good and wholesome things. That is God, your Lord. Blessed be God, the Lord of all the worlds. He is the Living-there is no deity but Him-so call on Him, making your religion sincerely His. Praise be to God, the Lord of all the worlds. (Qur'an, 40:64-65)**

Again we find in the Qur'an news of the situation of the deniers of this creation:

> **He to Whom the kingdom of the heavens and the Earth belongs. He does not have a son and He has no partner in the Kingdom. He created everything and determined it most exactly. But they have adopted deities apart from Him which do not create anything but are themselves created. They have no power to harm or help themselves. They have no power over death or life or resurrection. (Qur'an, 25:2-3)**


In the creation of the heavens and the Earth, and the alternation of night and day, there are signs for people with intelligence: those who remember God, standing, sitting and lying on their sides, and reflect on the creation of the heavens and the Earth: "Our Lord, You have not created this for nothing. Glory be to You! So safeguard us from the punishment of the Fire."
(Qur'an, 3:190-191)


CHAPTER 3
PROTEIN SYNTHESIS IN THE CELL



The proteins that humans ingest for their nutrition are not all used by the body in the same form. First of all, they are decomposed into smaller molecules called amino acids. Later on, these amino acids are brought together in new arrangements to make any one of the 200,000 different types of protein encoded in the DNA which may be needed at that particular time. The name given to this complex process, each step of which is a miracle in itself, is *protein synthesis*. Each step is broken down into tens of other steps. Without even realizing it, during your daily routine, these processes are repeated over and over again in the 100 trillion cells throughout your body.

A Giant Factory that Can't Be Seen with the Naked Eye

In order to understand this topic more fully, let's remember that the cell's organizational setup for protein production can be compared to a giant factory that can manufacture hundreds of different products all at the same time. Obviously, no factory on Earth can perfectly manufacture such a wide range of products. In order to understand the cell's perfect production methods, we can imagine a science-fiction model factory that possesses similar features and abilities.

Such a theoretical factory would work as follows: An external command arrives at the factory, and the decision is made to manufacture (for instance) a fighter plane. The plane's technical details are stored in the factory's computer, along with all its other measurements and specifications. The computer presents all these calculations and measurements into a plan that the production-and-assembly robots can understand, and sends these plans to them by special transport systems.

Carefully, the assembly system begins to manufacture the plane. Its every part is brought by an assembly robot responsible solely for that particular piece and then is assembled in the correct location. The smallest error will later result in the plane falling out of the sky; but the system makes no mistake. On the rare occasion a defective product is produced, it passes through sensitive quality-control checkpoints and is removed from the assembly line, whereupon the defective product is disassembled and its parts are used for new products. Nothing is wasted. At the same time, the factory is able to produce hundreds of other products such as dialysis machines, computers, and cars. Some of these products it uses for itself, and others it exports outside.

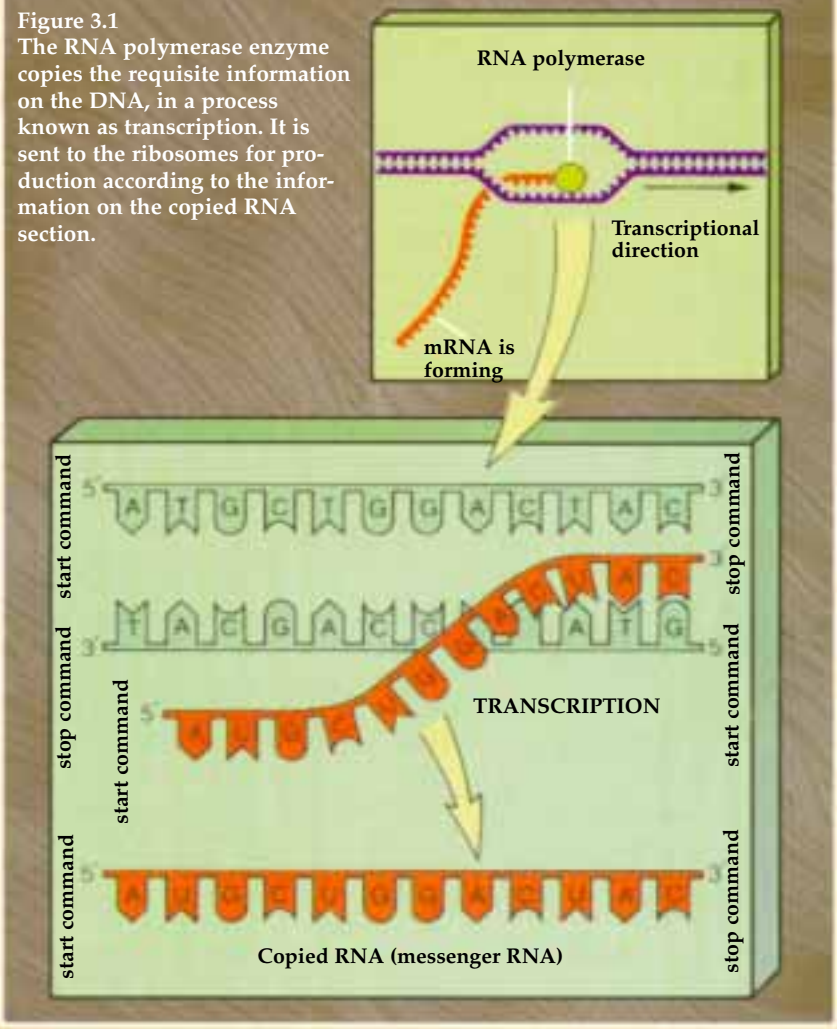
The cell's organization is actually much more perfect than this science-fiction analogy suggests. As mentioned before, the human body uses more than 200,000 different types of proteins, and all of these are synthesized in the cell. The plans for all of these proteins are also found in the cell. But the cell selects from its DNA only the information needed to make the proteins it will use for itself or it will export outside, and then makes only these proteins. The functional differences between the proteins it produces are at least as great as the differences between those of a plane and a television.

How Is the Synthesis of Proteins Realized?

- Whenever the body needs a protein, a cell or a group of cells goes into action to implement a series of complex processes. This may be a type of protein that the cell may need to use in its own structure or that it will export for outside use. The cell itself decides which proteins it will use within its own structure, but when it comes to making proteins for outside use, special messenger proteins are sent to the cell.

- All information about the particular protein's structure is encoded in the nucleus within the DNA. All instructions relevant to the protein to be made are copied from the DNA with the aid of many

Figure 3.1
The RNA polymerase enzyme copies the requisite information on the DNA, in a process known as transcription. It is sent to the ribosomes for production according to the information on the copied RNA section.



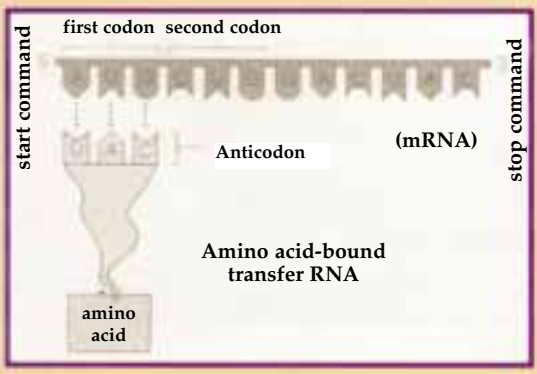


Figure 3.2
Every three consecutive nucleotides (codon) in mRNA specifies a particular amino acid in protein synthesis.
Each amino acid is attached to the ribosome by the corresponding transfer RNA.

enzymes and a strand of RNA molecule produced from this DNA. The protein will be produced according to the information in this RNA, which has been copied from the DNA. And so, this RNA is referred to as messenger RNA (mRNA; Figure 3.1).

- The mRNA, having received its instructions, heads towards the

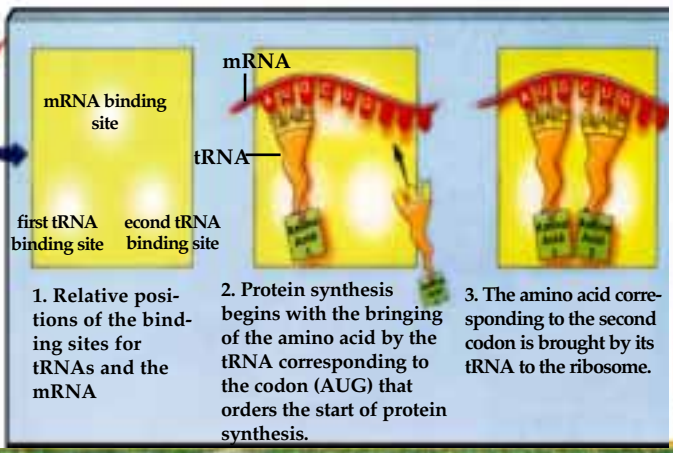


Figure 3.3
In the cytoplasm are found for protein synthesis pools of amino acids, tRNAs (transfer RNAs), and ribosomal subunits.

1. First, a tRNA molecule binds to a small ribosomal subunit.

2. The subunit binds to the start codon (AUG) on the mRNA transcript.

3. A large ribosomal subunit binds with the small one to form a production complex.



PRODUCTION COMPLEX (In order to start production, an mRNA binds onto an intact ribosome made up of the two subunits.)

1. Relative positions of the binding sites for tRNAs and the mRNA

2. Protein synthesis begins with the bringing of the amino acid by the tRNA corresponding to the codon (AUG) that orders the start of protein synthesis.

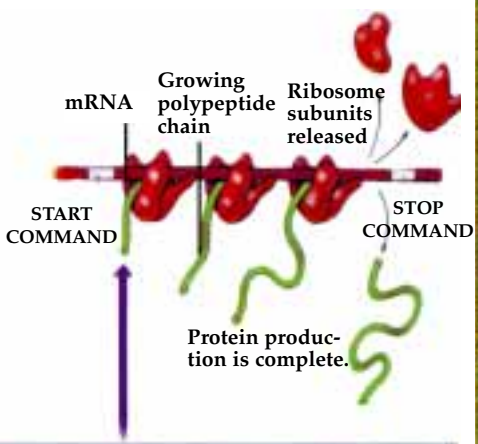
3. The amino acid corresponding to the second codon is brought by its tRNA to the ribosome.

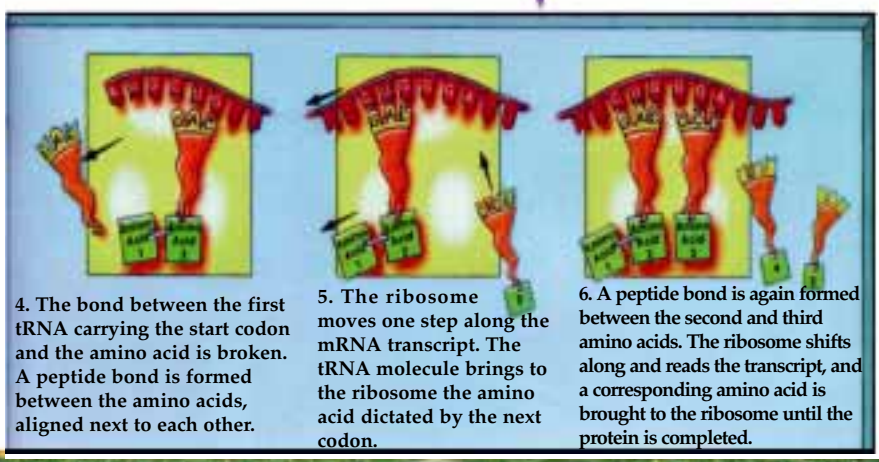
ribosomes-the cell's main production units. The ribosomes read the instructions, starting from the beginning of the RNA strand. Each code in the DNA is made up of three bases called a *codon*, and represents one amino acid in the protein chain.

- Using the order it has obtained from the RNA, the ribosome joins together the amino acids to form a chain.

- One by one, the amino acids are brought to a molecule called the transfer RNA, or tRNA. Every tRNA carries its own special amino acid. The tRNA carries the amino acid on one end and on the other, the code with the address where the tRNA will deposit its load (the anti-codon; Figure 3.2).

- The tRNA that arrives at the ribosome aligns along the mRNA transcript at the described address. There it deposits the amino acid it is carrying and moves away from the ribosome. The ribosome moves one codon (three bases) along the mRNA transcript. Another tRNA molecule arrives at the new





4. The bond between the first tRNA carrying the start codon and the amino acid is broken. A peptide bond is formed between the amino acids, aligned next to each other.

5. The ribosome moves one step along the mRNA transcript. The tRNA molecule brings to the ribosome the amino acid dictated by the next codon.

6. A peptide bond is again formed between the second and third amino acids. The ribosome shifts along and reads the transcript, and a corresponding amino acid is brought to the ribosome until the protein is completed.

address and aligns along the mRNA, depositing its amino acid. Once all of the codons have been "read," the amino acids join together to form a protein molecule.

As you can imagine, the event crudely outlined in a few sentences above, in reality occurs as a result of processes that are miraculously complex, beyond the limits of what the mind can conceive. But they do leave us facing some important questions.

The first has to do with the beginnings of protein synthesis. How does a cell-which cannot be seen with the naked eye, formed from mindless molecules-make the decision to start producing something? The ability to decide, think, and evaluate is a feature of conscious living things. Obviously, unconscious molecules of carbon, hydrogen, oxygen and nitrogen atoms don't possess the ability to make decisions. There must be another power inspiring the cell to make these decisions and then directing it accordingly.

Once a decision is made, the next step is for the messenger RNA to read the instructions encoded within the DNA. The enzyme responsible for producing RNA finds in the DNA only the instructions needed for the desired protein-but in reality, the process is extremely difficult. Finding the relevant information in the DNA means locating and extracting an instruction consisting of 900 base pairs from a store of 5 billion. This is like trying to find one particular sentence in a 20-volume encyclopedia, without any help. However this problem has been made easy in an awe-inspiring way: The relevant portion of the DNA has been marked by "start" and "stop" labels that the enzyme can find.

Who has placed these labels, understood only by enzymes, in the relevant places? Who gave these enzymes the ability to recognize these labels?

The undoubted answer to these questions is clear: the One Who made these faultless systems and the One Who placed every detail where it needs to be, and Who has allowed all of this to proceed in har-

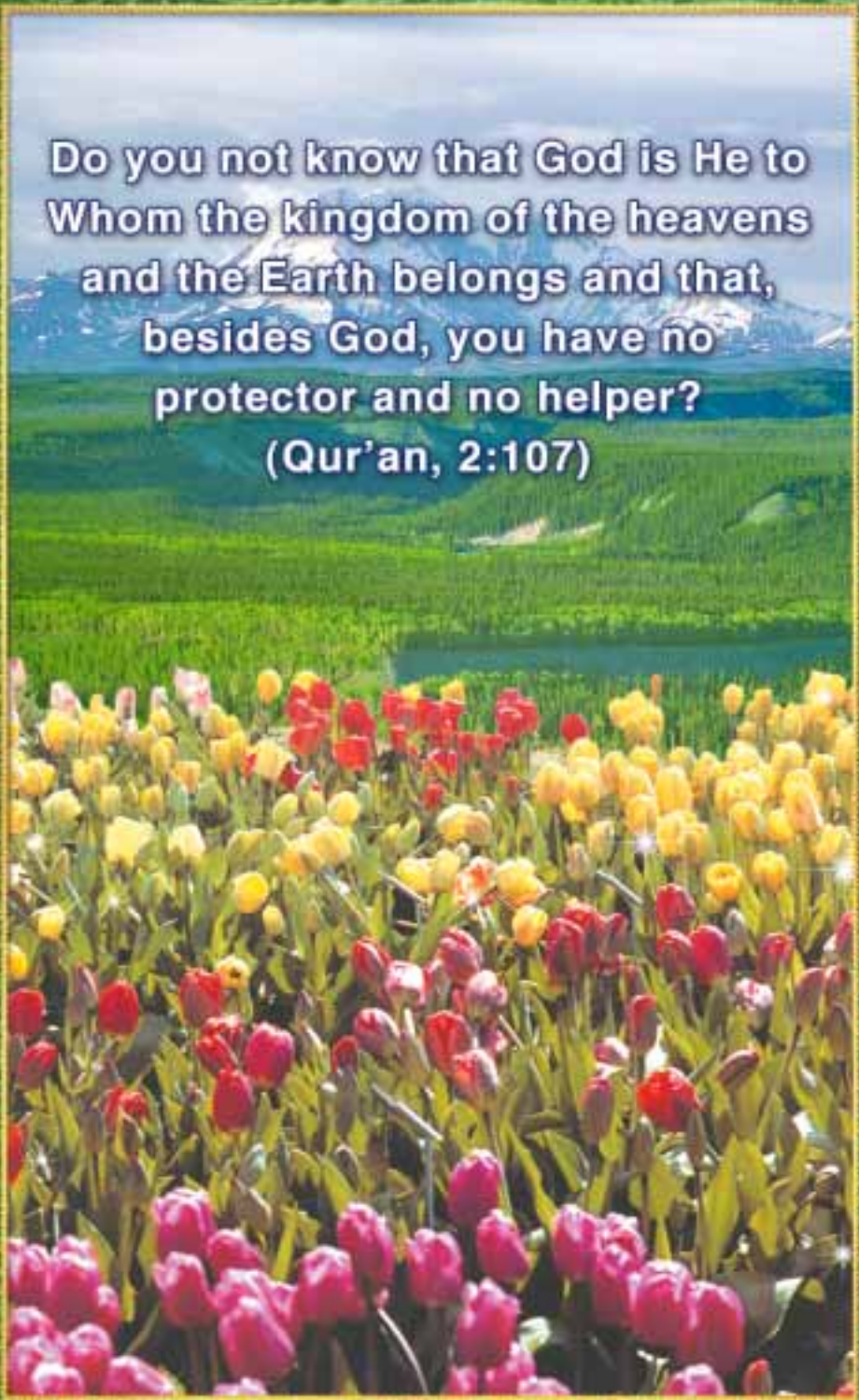
mony is the Creator of all living things, God, the Possessor of infinite knowledge.

All Manner of Precautions

Enzymes do not stop once they've found the relevant information. They facilitate its being copied at great speed, but some enzymes keep any problems from arising during the replication of DNA's highly complex structure. You'll recall that the DNA molecule is coiled, and shaped like a spiral ladder. During the replication stage, the rungs of the ladder need to open up so that their information can be read, and this is done by an enzyme. This unwinding process is so fast that friction might cause the DNA molecule to heat up and disintegrate. But this danger is overcome by precautions that have been taken beforehand. A special enzyme holds both sides of the helix apart, preventing any friction. Again with the help of special enzymes, the DNA molecule is prevented from getting tangled and messed up while being unwound during replication.

Remember, the enzymes that carry out such complicated and difficult tasks are just proteins themselves, also produced by the same method: protein synthesis inside the cell. In order for this production to be carried out, all of the required enzymes, the vitamins that help the enzymes, helper proteins and energy sources, the required genetic instructions and production organelles-are all needed at once, and in the same place. The lack of just one of these components will render the whole mechanism ineffective.

Consequently, the first cell that ever appeared on Earth had to have formed in its entirety, all at once. Undoubtedly, this means that the cell was created-a situation that evolutionists can never explain, proposing that living things formed step by step as a result of coincidences. Two evolutionary scientists Fred Hoyle and Chandra Wickramansinghe express the quagmire within which evolutionists have fallen:


Do you not know that God is He to
Whom the kingdom of the heavens
and the Earth belongs and that,
besides God, you have no
protector and no helper?
(Qur'an, 2:107)

…life cannot have had a random beginning. Troops of monkeys thundering away at random typewriters could not produce the works of Shakespeare, for the practical reason that the whole observable universe is not large enough to contain the necessary monkey hordes, the necessary typewriters, and certainly the waste paper baskets required for the deposition of wrong attempts. The same is true for living material. The likelihood of the spontaneous formation of life from inanimate matter is one to a number with 40,000 noughts after it... It is big enough to bury Darwin and the whole theory of evolution. There was no primeval soup, neither on this planet nor on any other, and if the beginnings of life were not random, they must therefore have been the product of purposeful intelligence.[8]

The Enigma of Unwanted Sequences

During the copying of DNA by RNA in some cells, amazing events take place. The enzyme that produces RNA reads and copies the code in the DNA relevant to the protein it will produce, but it sometimes runs across codes that aren't needed for this production. Because during replication, the enzyme reads the DNA fragments in order, it has to read the irrelevant instructions as well. But remember, even one irrelevant instruction can render an entire synthesized protein completely worthless.

Let's examine in more detail the problem this enzyme encounters. Say a protein of 1,000 amino acids is to be produced. If each amino acid is represented by three bases (a codon), then in order to perform this duty, the enzyme needs to read a 3,000 base pair DNA sequence-in order. But within this 3,000-base pair sequence is a complete sequence of say 500 base pairs for which the enzyme has no need. But in order to reach the instructions that follow, the enzyme cannot just skip over these 500 base pairs without copying them. It must copy them whether it wants to or not. The enzyme cannot cut the giant DNA molecule, nor can it skip over it. What would you-a human being, possessed of intellect-do to solve this problem?

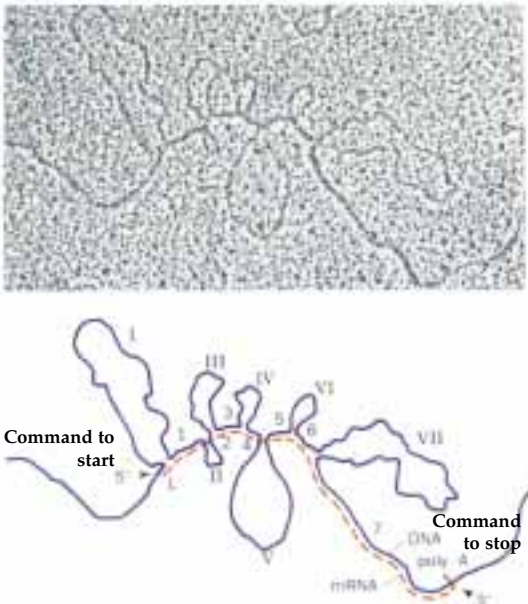


Figure 3.4
DNA shows mRNA the way by presenting it with only the relevant information. The regions depicted by the numbers I, II, III, IV, V, VI and VII contain irrelevant information. That is why they coil out in loops and are prevented from being copied. Regions represented by the numbers 1, 2, 3, 4, 5, 6, and 7 are relevant information presented to the mRNA. Unconscious atoms like carbon, hydrogen, and phosphate cannot possess intelligence. This intelligence belongs to God, Who wrote that genetic information there, Who allows it to be read and brings it to life.

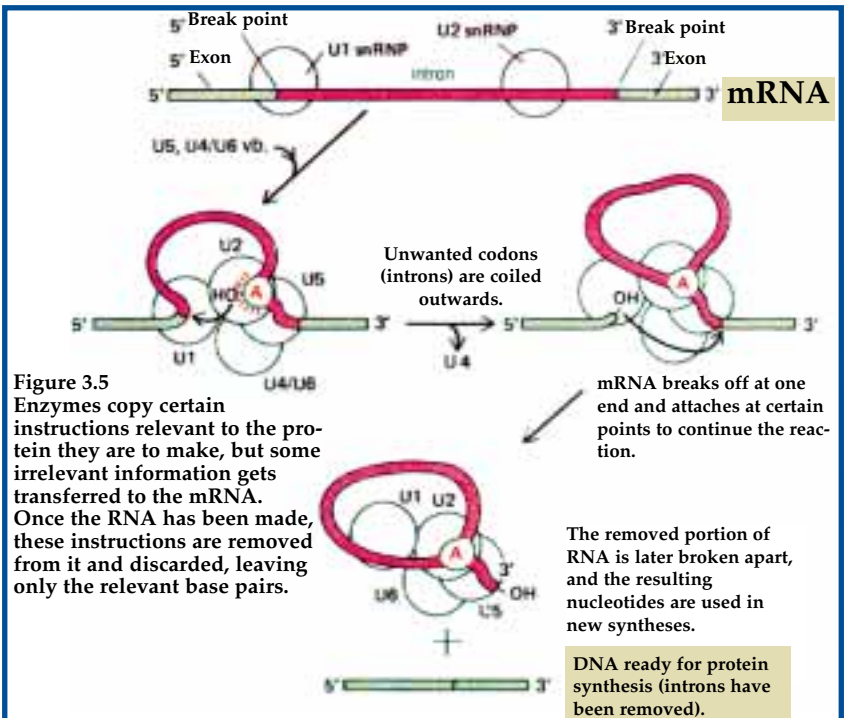


Figure 3.5
Enzymes copy certain instructions relevant to the protein they are to make, but some irrelevant information gets transferred to the mRNA. Once the RNA has been made, these instructions are removed from it and discarded, leaving only the relevant base pairs.

In recent years, scientists have observed the fascinating way in which this problem is solved. The DNA molecule, made up of simple materials like phosphate, sugar, and carbon, acts in a way which leaves one dumbfounded. The unwanted sequence, called an *intron*, is coiled into a loop outside of the main sequence (see Figure 3.4). In this way, the ends of the codons that need to be read one after the other, but which are separated by irrelevant information, are brought together. The regions containing the necessary information are called *exons*. The enzyme that reads the DNA sequence passes by without reading the instructions contained outside in the loop and continues reading on the other side. As you can imagine, many different chemical reactions occur at each stage of this event. But in the nucleus of the tiny cell, there is not the slightest confusion or chaos arising from these reactions.

A second method is used to prevent the problem of the introns. The



Figure 3.6
The genetic code of Beta-globin gene. Codons needed for synthesis of this protein are highlighted in pink. DNA presents this region to the enzyme that synthesizes RNA.

RNA first copies the entire DNA molecule from start to finish, including the irrelevant sequences. Later on, as if obeying a command, it coils out the unnecessary sequences in loops, which are then broken off and removed (see Figure 3.5). But who tells the RNA that the sequences it has coiled up and broken off are irrelevant and unnecessary?

The enzyme that brings about these events must be very familiar with both the DNA and the RNA molecules. It must have received special training for such a specific job, know its responsibilities and work in a cooperative manner with the other enzymes to carry out its duty. On the other hand, the DNA, like a separate living entity, must have the ability to make decisions and, according to the situation, present certain instructions to the enzyme while keeping others from it and guiding the enzyme to what it needs to do. And of course both the enzymes and the DNA need to know the function of the protein they are manufacturing. First of all, they need to know what protein needs to be made, then must make the necessary plans and all the complex calculations to bring this about.

But it is clear that such abilities as *knowing*, *calculating*, *wanting*, and *creating* cannot exist in this heap of tiny molecules. These functions are attributes of God, the Master of Infinite Power. As He displays these attributes throughout the whole universe, so does He display them in the lifeless molecules in the nucleus of a tiny cell. A person of any intelligence would understand that this system has been created and, just like all of the other systems in the universe, the cell is also under God's absolute control.

His dominion over all of creation is given in the Qur'an as follows:

> **I have put my trust in God, my Lord and your Lord. There is no creature He does not hold by the forelock. My Lord is on a straight path. (Qur'an, 11:56)**

Getting the Order Ready

As a result of the processes enumerated in the previous section, the instructions needed for the order for the particular protein are transferred by enzymes from the DNA to the messenger RNA (mRNA). Now it's the ribosomes' turn to manufacture the particular protein, according to orders given them by the DNA. The ribosome manufactures a substance to the exact specifications desired. The structural plan of the ordered protein is also found in the mRNA. The mRNA, together with the instructions it has copied from the DNA, moves out of the nucleus and towards one of the ribosomes found in the cytoplasm, to which it binds. An amino acid, corresponding to each codon in the mRNA, is brought to the ribosome by transfer RNA (tRNA), and attached to the relevant site. To one end of the tRNA is attached the anticodon of one of the codons in the mRNA, and on the other end is the amino acid represented by the codon. As the tRNA binds to the codon in the mRNA that corresponds to its own anti-codon, the amino acid it bears is automatically placed in the correct sequence.

There are 20 different tRNA molecules for the 20 different amino acids used. Each amino acid can bind only to its own tRNA. This is because in order for them to bind to each other, their three-dimensional shapes have to fit together exactly (see Figure 3.7). The fact that the tRNA and the amino acids, composed of thousands of atoms, have been made to fit together is a proof of the harmony and perfection in God's creation. God is the **Creator, the Maker, the Giver of Form *(al-Bari)*** (Qur'an, 59:24).

Thousands of amino acids join together to form the desired polypeptide chain (or protein molecule), according to the thousands of instructions found on the mRNA arriving at the ribosomes on which the protein is synthesized. Not even one extra amino acid is included in the mRNA plan to be attached to this molecule. No amino acid attaches to a different site than what the plan requires, and no amino

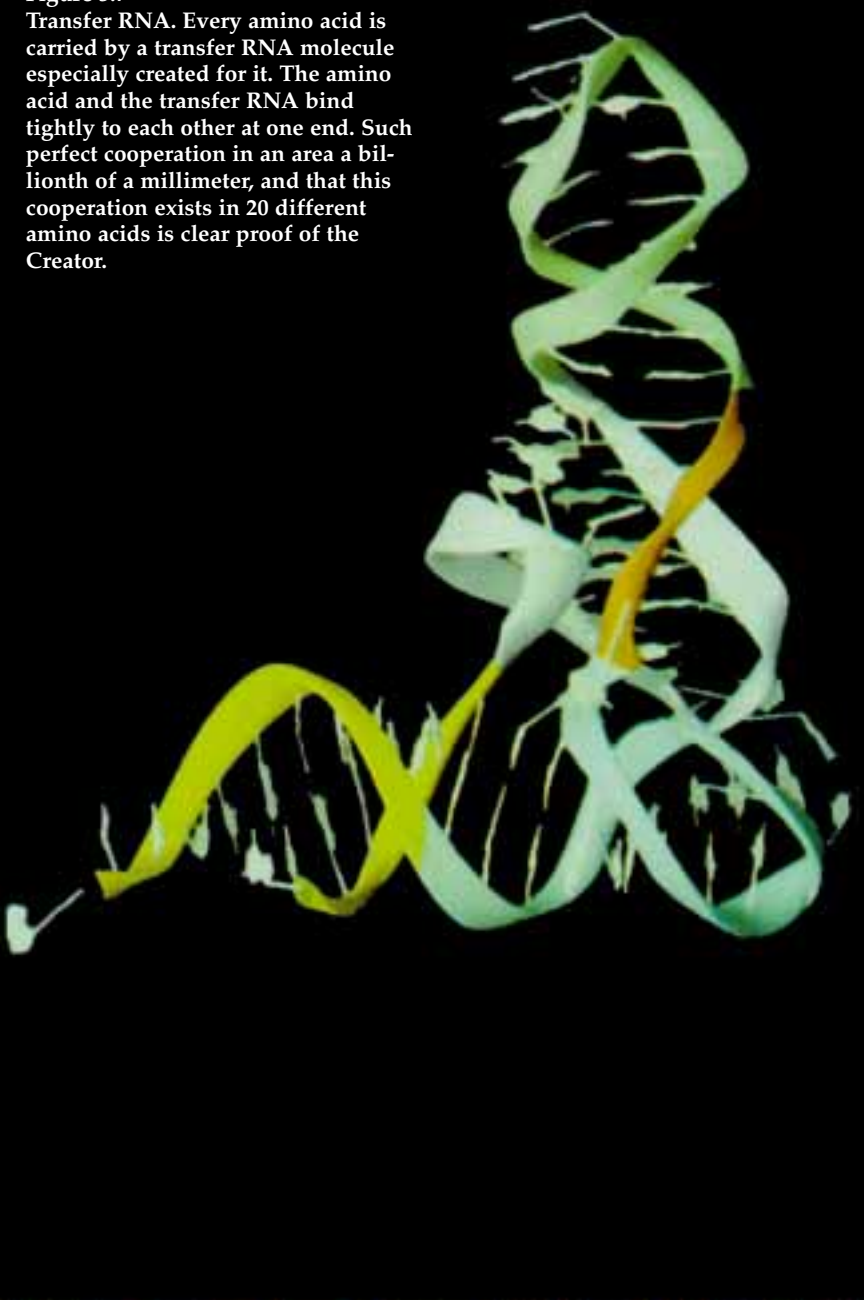


Figure 3.7
Transfer RNA. Every amino acid is carried by a transfer RNA molecule especially created for it. The amino acid and the transfer RNA bind tightly to each other at one end. Such perfect cooperation in an area a billionth of a millimeter, and that this cooperation exists in 20 different amino acids is clear proof of the Creator.

acid is left out. If any of these mistakes occur, the desired protein will not be made, and a different, unwanted protein will be synthesized. But cells and organisms will not generally tolerate foreign proteins. They will make antibodies against them and demonstrate an allergic reaction.

Like other elements in the cell, ribosomes are formed from lifeless atoms. But this heap of protein succeeds in manufacturing thousands of different products by numerous complicated processes, with an intelligence that cannot be its own, but which is possible through the creation of God.

The synthesis of just one protein, according to instructions given in the DNA, requires at least 75 helper molecules in the cell working together in harmony. The enzymes carrying out the duty of copying the instructions in the DNA are not included in this number.

Each protein molecule is made, the last amino acid is attached, and the protein is complete. But the synthesis is not considered finished until the cell (or more correctly, its ribosomes) go through one more control checkpoint. If any fault is found at the last minute, the cell does not just say, "That's good enough. Let this one go through," and produce a molecule like this outside of the plan. Such tolerance, allowing the construction of a protein that's not the one originally planned, will degenerate the cell's control system and drive it towards disorder and destructive anarchy-a state that comes about only in pathologic conditions or when the cell is dying.

Under normal, healthy circumstances, a protein molecule that is incomplete and imperfect is delivered to destructive enzymes that break many or all of its peptide bonds. They reduce the protein to its constituent amino acids or into short, harmless polypeptide chains and leave them available as structural building blocks for other protein syntheses.

This cellular process amazes even Prof. Muammer Bilge, a Turkish evolutionist academician and cell specialist:

Because of the facilitation of all of these results as required within the

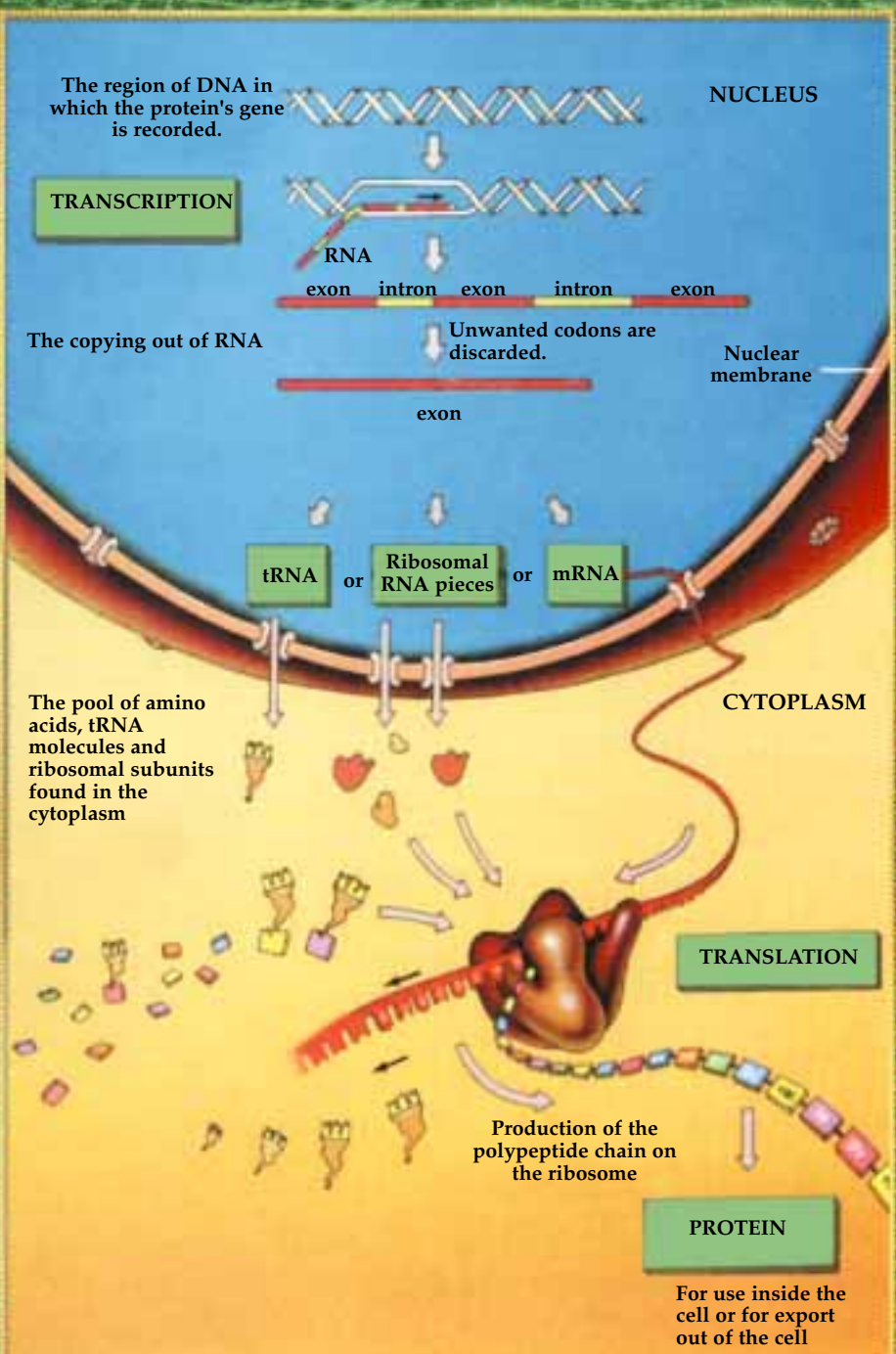


Figure 3.8 Overview of protein synthesis

cell, and the lack of any danger or loss to itself, or the falling into any impasses, we can say that the protein synthesis industry in the cell is carried out by a perfect organization and faultless foresightedness…all of this occurs within the cell as such. But how does it all take place, and how does the cell manage to do so? We still do not understand this. We can only see the results and we can only perceive some of the finer points of the perfect organization bringing about these results.[9]

Life Cannot Arise by Coincidence

How does evolutionary theory explain how proteins, the first stage of life, were first formed?

The answer is simple: it cannot. The evolutionists' claim is nothing more than that proteins came about by chance, as a result of a series of coincidences. Examining their claim's inconsistency, we can see how strikingly deceitful evolution really is.

How could the *first* protein molecule have come about by coincidence, under such uncontrolled conditions as-according to the claim of evolutionists-existed on our primitive Earth? How could the ordering of amino acids have come about "by chance" despite all the negative factors present on that primitive planet?

What's more, it's not enough for just this one protein to have formed itself. In this wildly uncontrolled environment, it had to wait for another protein molecule to form just like itself-by coincidence under the same conditions-without anything destroying it in the meantime. This had to occur again and again until at last, millions of appropriate and necessary proteins had come together "coincidentally" in the same place to form the cell. The very first proteins that formed had to wait patiently for thousands and millions of years for other proteins to form right next to them-without being destroyed in the meantime despite ultraviolet radiation and a harsh environment. Then these proteins, assumed to have formed by coincidence in enough numbers and in the same place, had to have come together in a meaningful way to form the organelles in the cell. No foreign sub-

stance, harmful molecule, or useless protein should have been incorporated into the chain. These organelles had to come together in the most organized fashion, with all the necessary enzymes, and had to have been surrounded by a membrane, containing a special fluid that constituted the most ideal environment.

But even if all of these implausible events took place, the pile of molecules that resulted still would not have come to life.

Research has shown that the mere coming together of substances necessary for living things is not sufficient enough for life to come about. Even if all of the proteins needed for life were placed in a test tube, they still wouldn't result in a living being, because life is much more than just a few molecules being found together.

Life is a metaphysical concept. Life is a reflection of the *al-Hayy* (The Living) attribute of God. Only with His will does life begin, continue and then cease. Just like everything else, life comes about through the mere command of *Be* from God.

The theory of evolution cannot explain how the necessary substances for life formed, nor how they came together, nor how life first started.

Let's for a moment accept all of these impossibilities: that billions of years ago, all of the substances needed for life came together as a living entity. Alas, the theory of evolution is still destined to collapse! Even if the cell became alive, eventually it would have died. There would have been nothing left, and we would have been back where we started. Because this first living had no genetic system in place, cell would have died not having been able to replicate itself and therefore, could not have left behind a new generation. Life would have expired along with the cell.

The genetic system is not made up of just DNA. Vital components include enzymes that read the code in the DNA, the production of mRNA from the reading of this code, ribosomes upon which the mRNA with its codons binds, the tRNAs that carry to the ribosomes

the amino acids to be used in production, and innumerable other complex enzymes that facilitate these processes. All had to be found in the same environment-which, moreover, had to have been completely isolated and controlled. Only in the cell itself are found all of the needed raw materials and energy sources. Consequently, an organic substance can replicate itself only if there first exists a completely functional cell with all its organelles in place. This means that the cell, with its all incredibly complex structure, was created in *one instant*.

But for a complex structure to come into being instantaneously, what are the implications?

We can compare the cell's complexity to that of a highly developed car (even though the cell actually constitutes a much more complex and highly developed system). Now, suppose you went for a walk through an untouched forest one day and found the latest model car among the trees. All the raw materials making up the car-iron, plastic, rubber, etc.-are made from substances that occur naturally. But would you believe that such a sophisticated, user-friendly machine came about as a result of the coincidental coming together of different elements in the forest over millions of years? Would you think that these various substances were also made coincidentally, and then came together to make such a car?

Of course, you know that any car is the product of conscious design-by engineers working in a factory. And you would wonder what it was doing in the middle of a forest.

For such a complex structure as the cell to come into being in one instant indicates that it was created by a conscious Being. The probability that one useful, meaningful protein could come about by chance is zero, so how impossible is the coming together of millions of these various proteins to form a cell?

Moreover, this chain of impossibilities does not end there. Even if the millions of proteins needed came about by coincidence and

gathered at the same point, this is still the equivalent of simply heaping bricks and cement onto a site where a sophisticated skyscraper is to be built. Only with a plan of utmost complexity, after the most sensitive measurements, calculations, and assuming a chain of order and command among intelligent builders, can such a skyscraper be erected.

But some people, on seeing a skyscraper, will ask, "Who built this?" yet still wonder about the "coincidences" that brought about living things. This blindness is really difficult to understand. To understand this is possible only with the advice given in the Qur'an because, as the Qur'an informs us, some people **"have hearts they do not understand with. They have eyes they do not see with. They have ears they do not hear with. Such people are like cattle. No, they are even further astray! They are the unaware."** (Qur'an, 7:179)

The fact that some people cannot see clear truths that are in front of their eyes and their denial of their Creator is one of the miracles of God. And like other miracles, it too is astonishing. Just as the creation of the Earth, the Sun and everything in the universe is a sign of God's infinite power and knowledge, so too is the creation of one who denies, even though surrounded by an infinite number of proofs-another sign that God has power over all things.

> **If you are surprised at their blindness, what could be more surprising than their words: "What, when we are turned to dust, shall we then be created all anew?" These are the people who reject their Lord. Such people have iron collars round their necks. Such people are the Companions of the Fire, remaining in it timelessly, for ever. (Qur'an, 13:5)**

Some Other Examples of Discrepancies

The living cell possesses the most complex structure the scientific world has ever come across. Even the single cell of tiny prokaryotic bacterium-the simplest organism capable of living as a separate enti-

ty-has developed such complexity that the technology of a space shuttle is simple by comparison.

To accept the impossible, suppose that the cell did form coincidentally and then let's consider the plausibility of this supposition. In this situation, most of the innumerable objects and tools we see around us, which are much simpler in structure than the cell, would have to have been formed a thousand times easier than the cell. According to the rules of simple logic, the formation of a less complex object by chance is much easier than the formation of a more complex object by chance. If this highly complex structure could have formed on its own, then simpler ones in the same environment would have to have formed much more easily and in greater numbers. Consequently, if we accept for a second that coincidences have the power to create, then the probability that a television, a car, a microchip or a walkman could form at random, with no creative mind, in a primitive environment, is much higher than a cell theoretically forming by chance. (Without a doubt, in reality, the possibility that these formed by coincidence is zero, and this is a solely imaginary example, the cell included).

Consider another discrepancy.

For a living cell to form, multiply, and continue the next generation, the proteins making up a major part of the cell's components and the DNA that facilitates genetic transmission must have been found together at the same time. If all the proteins and enzymes, organelles, cell membrane, and DNA all came together at random, even this is not enough to form a cell because of one great danger: DNA can in no way come into contact with these proteins since DNA is acidic, and proteins are bases. Whenever they come in contact, they will immediately react and neutralize each other. Even if the DNA nucleotides and the proteins came together in the "primitive soup"-the imaginary environment so named by evolutionists-they would have destroyed each other and never moved on to the next step.

Another miraculous aspect is that although an acid and a base naturally react together when brought in contact, in the cell these two substances display perfect cooperation and work together in harmony to facilitate production-yet their coming together freely outside of the cell spells destruction for both of them.

As always, this system has been planned in great detail, with all manner of precaution. The DNA has been placed in the nucleus, the safest of all places in the cell, and isolated by very sensitive and special means from surrounding structures that might harm it. During the DNA replication process, contact between the DNA and the enzyme proteins occurs in such a controlled and measured manner that no molecule is damaged, and both substances enjoy the highest productivity.



Molecules Have No Consciousness

Biology books by evolutionist authors commonly emphasize that the elements of the processes we have discussed apparently act with conscious intent. Whether writing about the cell, the RNA or the DNA, the enzymes or the organelles, we too frequently used verbs like *reads, decides, chooses, tries, repairs*. Quite clearly, these verbs can only follow a noun that possesses knowledge, intelligence and will. But the cells we have written about up to this point are composed of mere atoms and molecules that in no way possess the ability to think, make decisions, or reason.

As made clear in previous sections, however complex and amazing a structure the cell may have, it can in no way possess intelligence or consciousness. For this cell or any of its components to desire, decide or control anything is consequently not an issue.

For this reason, verbs such as *decides, controls* and *repairs*, assumed to apply to the cell, need in reality to be attributed to the knowledge and intelligence of the Creator.

For example, when we say "this book is trying to say that…" it is obvious that we are talking about what the author of the book is trying to say. Otherwise it is clear that it cannot be understood from this expression that the book itself, its pages and its ink, thought about something and then tried to explain it. (For this to be understood by someone would indicate that that person has a serious mental health problem).

In the same way, expressions such as *wants, decides, calculates*, which are used in many parts in this book, are just analogies chosen to practically describe and depict the events that take place. To attribute false meanings to the words other than what they mean will lead man into a deep misconception. It's obvious that the will to desire and decide does not come from this heap of unconscious molecules. These characteristics, the creative power that allows this pile of molecules to carry out such conscious and calculated acts and that creates these

according to their duties belong only to God. The One Who desires, and decides and makes to happen is God.

That substances we cannot normally form a connection with such concepts carry out these extraordinary acts is a means whereby we can perceive more easily and clearly the true possessor of power and intelligence behind them all.

Up to now, we have explained just a few of the miracles that take place in the cell and in the human body. Anyone with a conscience can perceive the perfection in the creation of his own body and by thus knowing God's handiwork, can grow closer to Him. In contrast, those at a lower level of intelligence will of course maintain the perspective that "However all of this happens, it happens. I care only about what goes in my pocket and down my throat."

But a person of knowledge and conscience will ask, "Why was this perfect system created? And who made it?" There is only one purpose behind this system in each of the trillions of cells in the human body: so that man can perceive and comprehend God's infinite knowledge, intelligence, power and perfection in His creation, and His close attention… Man must realize that not even one molecule within a cell



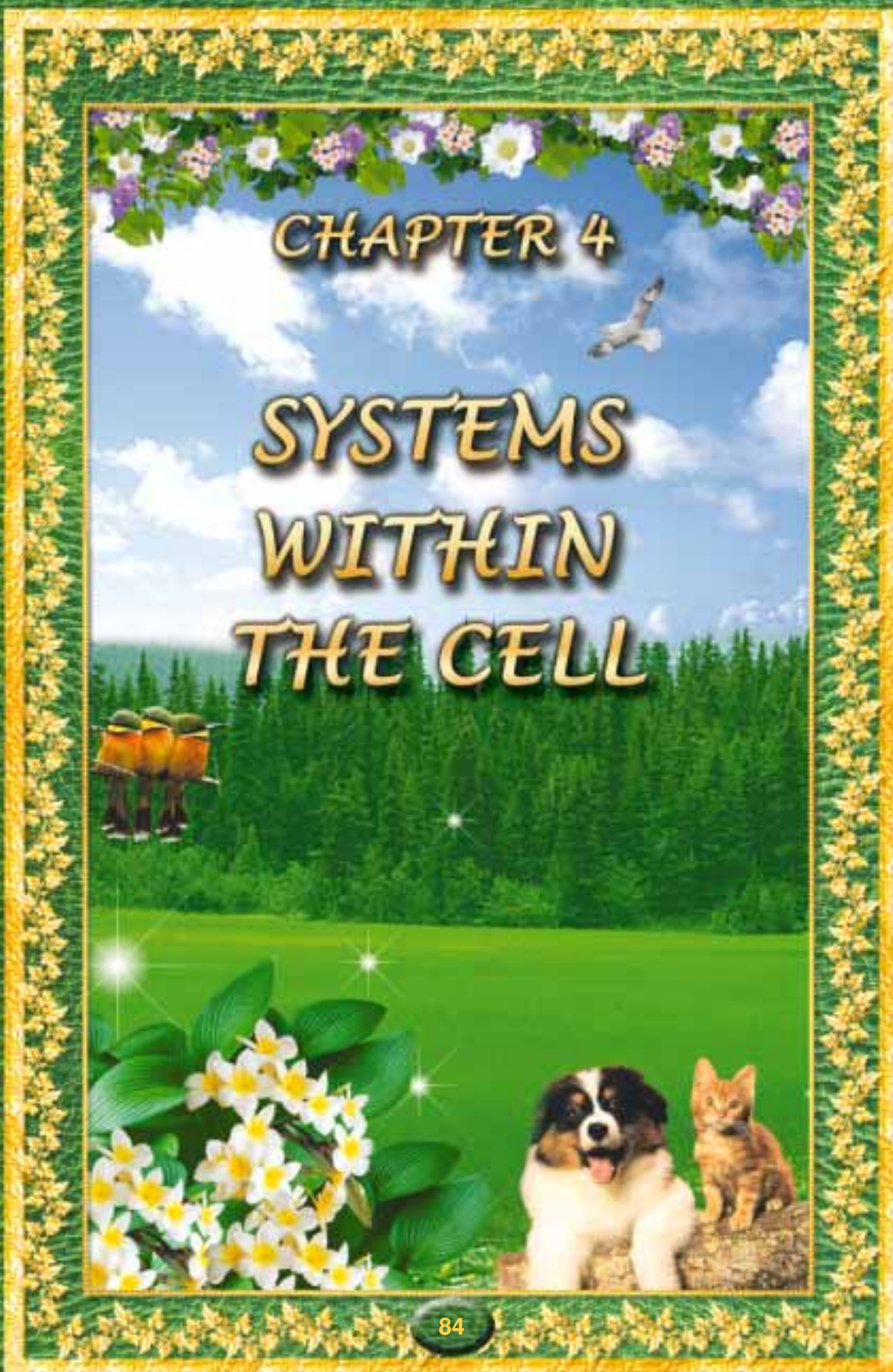
can act without His permission and knowledge, let alone behave like a conscious human being who walks and talks.

Even if we assume that there were no other miracles on the face of the Earth, the fact that 5 billion instructions have been stored in a single cell is enough proof for a person of knowledge and conscience to have faith. And the same proof will this time be proof against those people who, having received such knowledge, turn their faces from God-proof that will drive them to punishment on the Day of Judgment.

God, the Possessor of infinite mercy, displays an infinite number of proofs not just in the tiny cell but also right throughout the universe. Those who believe can further strengthen their guidance with the number of these proofs. Those who deny, however, will receive their punishment for rejecting all of this and thinking it was all just *empty and without purpose*. One verse in the Qur'an states the following:

> **We did not create heaven and Earth and everything between them to no purpose. That is the opinion of those who disbelieve. Woe to those who disbelieve, because of the Fire! (Qur'an, 38:27)**




CHAPTER 4
SYSTEMS WITHIN THE CELL



e've examined how protein synthesis started, and came about but for it to come about, the most important need is for raw materials. And in order to participate in protein synthesis, these raw materials need to go through certain processes, to be refined to bring them to a usable state. For example, plastic and many other products are made from oil, but first the oil must go to the refinery, and through many chemical processes, in order to bring it to a state that can be used for production.

The same sort of technology, though much more highly developed, is found in the cell.

The Laboratory in the Cell

Nutrients entering the cell are broken down as a result of a series of extensive chemical reactions, resulting in their becoming raw materials that can then participate in new syntheses. In this way they can be used in totally new ways-not just as amino acids to form proteins, but many other chemical substances that the cell will use in many ways.

One organelle within which these processes are carried out, and which resembles a highly developed chemical laboratory, is the lysosome. Approximately 36 different enzymes in the lysosome have the duty of digesting different nutrients. For example five enzymes take part in protein digestion, four participate in the digestion of nucleic acids, 15 in the digestion of polysaccharides, six have a role in the digestion of lipids, two in the digestion of organic sulphates, and four different enzymes take part in the digestion of organic phosphates. Consider just one enzyme's chemical structure, physical characteristics, complex processes and incredible speed with which these processes are carried out, and then realize that there are 36 different enzymes that have duties in an organelle only 1 micron (a thousandth of a millimeter) in size, and it becomes clear how great a miracle this all is. Such powerful digesters cooperate with each other in such harmony without harming each other or the cell as a whole.

Transport Within the Cell

Products made in the cell and their raw materials are transported through channels called endoplasmic reticula (see Figure 4.1). The ribosomes that carry out protein synthesis are generally placed near this transport line, just as factories are built close to the highway and docks for easier delivery of raw materials.

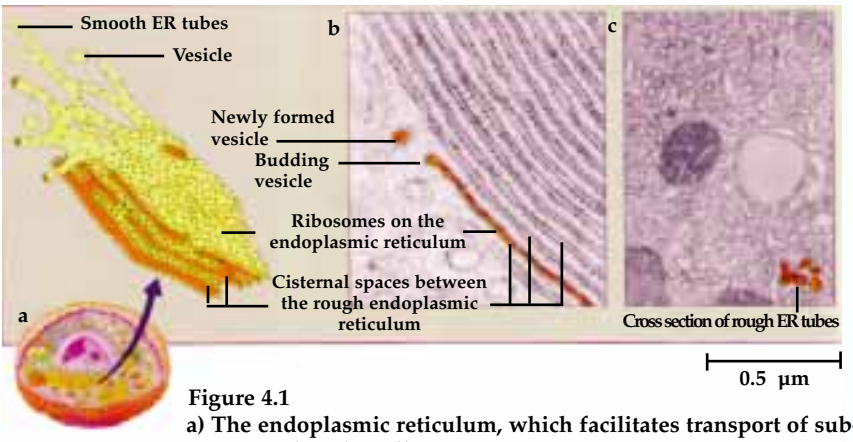


Figure 4.1
a) The endoplasmic reticulum, which facilitates transport of substances within the cell
b) Rough endoplasmic reticulum (with ribosomes)
c) Cross section of rough endoplasmic reticulum (with ribosomes)

The Cells' Packaging System

Clearly, every detail in the cell has been especially created by a superior intelligence. For another example of this, look at the packaging facilities within the cell.

One of the most important aspects in manufacturing any product is packaging and transporting it to the consumer. Food especially must be packaged in such a way to keep it from spoiling for as long as possible. While modern technology has found solutions to this problem only in the last few decades, every one of the trillions of cells contains a superior packaging, transportation, and storage system that has been around for thousands of years, ever since man was first created.

This packaging system is carried out within an organelle called the Golgi body (see Figure 4.2). It accumulates secreted substances, then packages them into small vesicles where they are either stored as needed, or exported out of the cell.

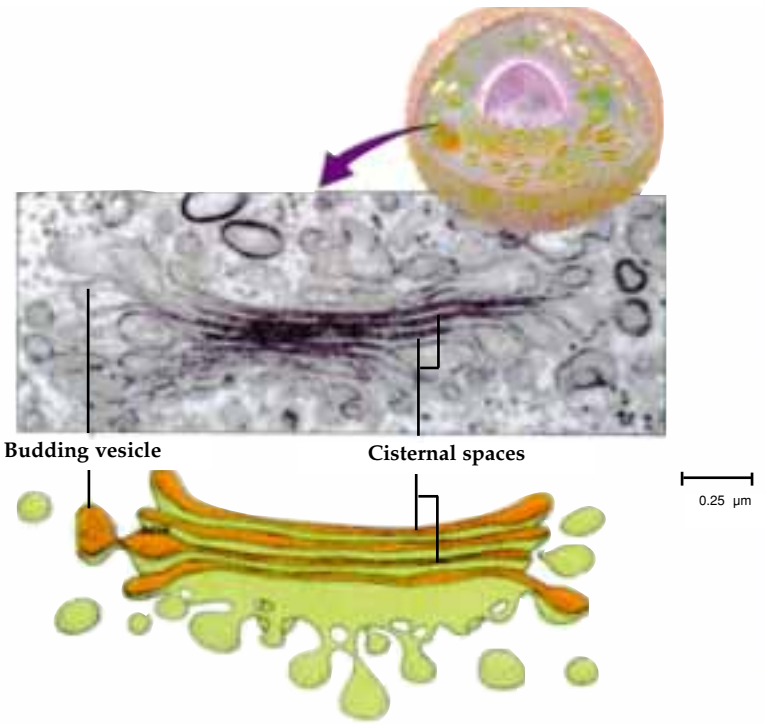


Figure 4.2 Electron micrograph of Golgi body



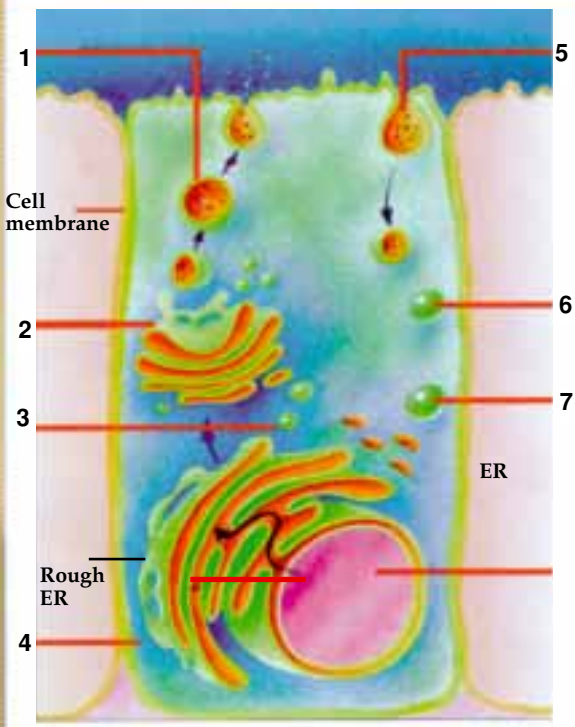


Figure 4.3
Proteins are built according to DNA instructions. In the nucleus, synthesized RNA receives from the DNA the relevant instructions needed for protein synthesis. It takes these instructions to the ribosomes and carries out protein synthesis on these organelles. Proteins synthesized on ribosomes found on the surface of the endoplasmic reticulum are deposited at the endoplasmic reticulum for transport.

1-EXOCYTIC VESICLES

The budding vesicles of the Golgi body carry the substances they contain towards the cell membrane. The substances that the cell doesn't want or for which the body has no need are ejected from the cell.

2-GOLGI BODY

Transported proteins and lipids are stored here, and classed according to their duties. Substances are then stored in cell organelles as needed.

3-TRANSPORT VESICLES

Vesicles deliver proteins and lipids to the Golgi body, where they will be stored.

4-ENDOPLASMIC RETICULUM (ER)

Many proteins are produced by ribosomes found on the surface of the rough ER. Lipids, on the other hand, are synthesized on smooth ER. Both substances are either secreted out of the cell or stored.

5-ENDOCYTIC VESICLES

Forming as buds on the cell membrane, they import substances from outside the cell. When they arrive at the lysosomes, digestive enzymes break them down, along with their contents.

6-LYSOSOMES

Containing digestive enzymes, they produce basic raw materials the cell needs by digesting macromolecules arriving from outside the cell. The vesicle that enters the cell transports substances to the lysosomes.

7-MICROBODIES

Just like lysosomes, they contain digestive enzymes that break down substances such as fats and hydrogen peroxide.

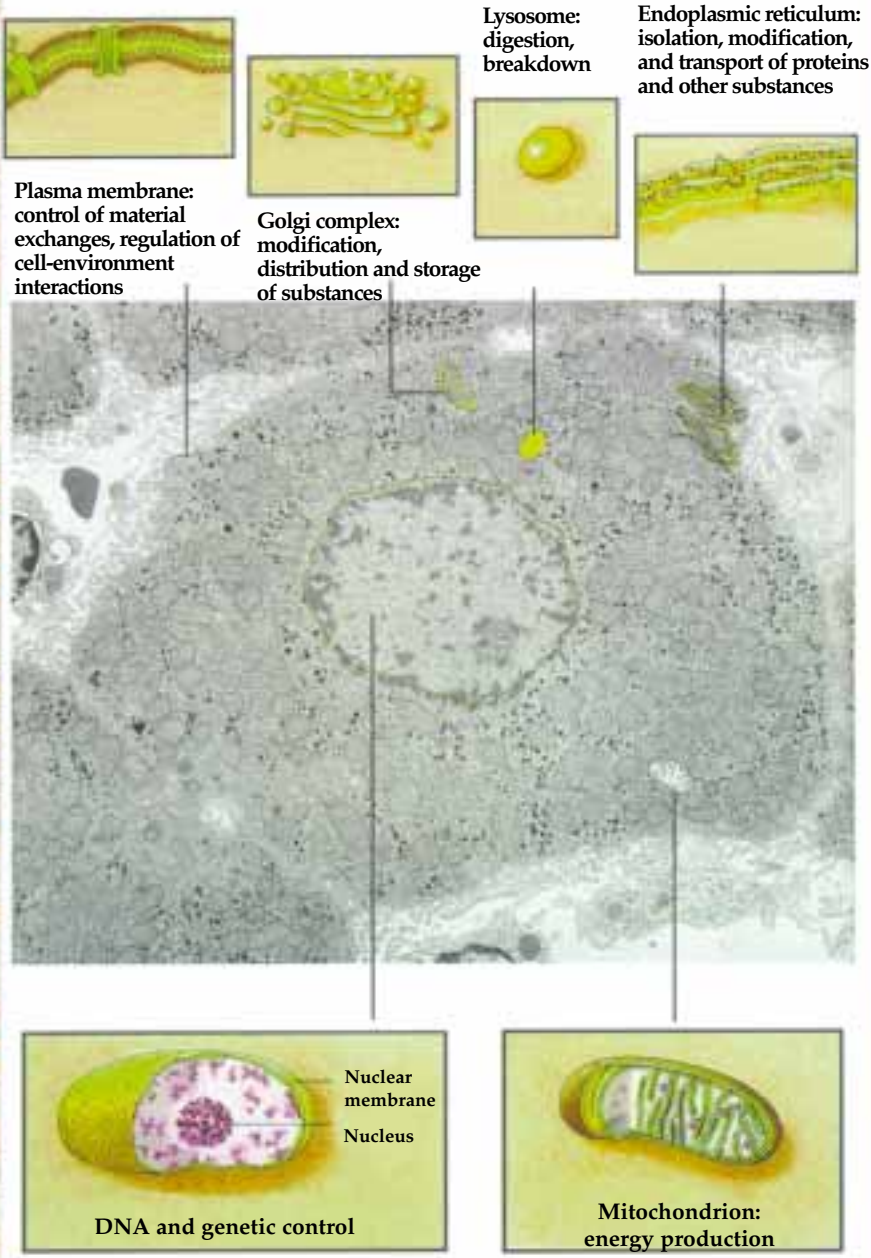
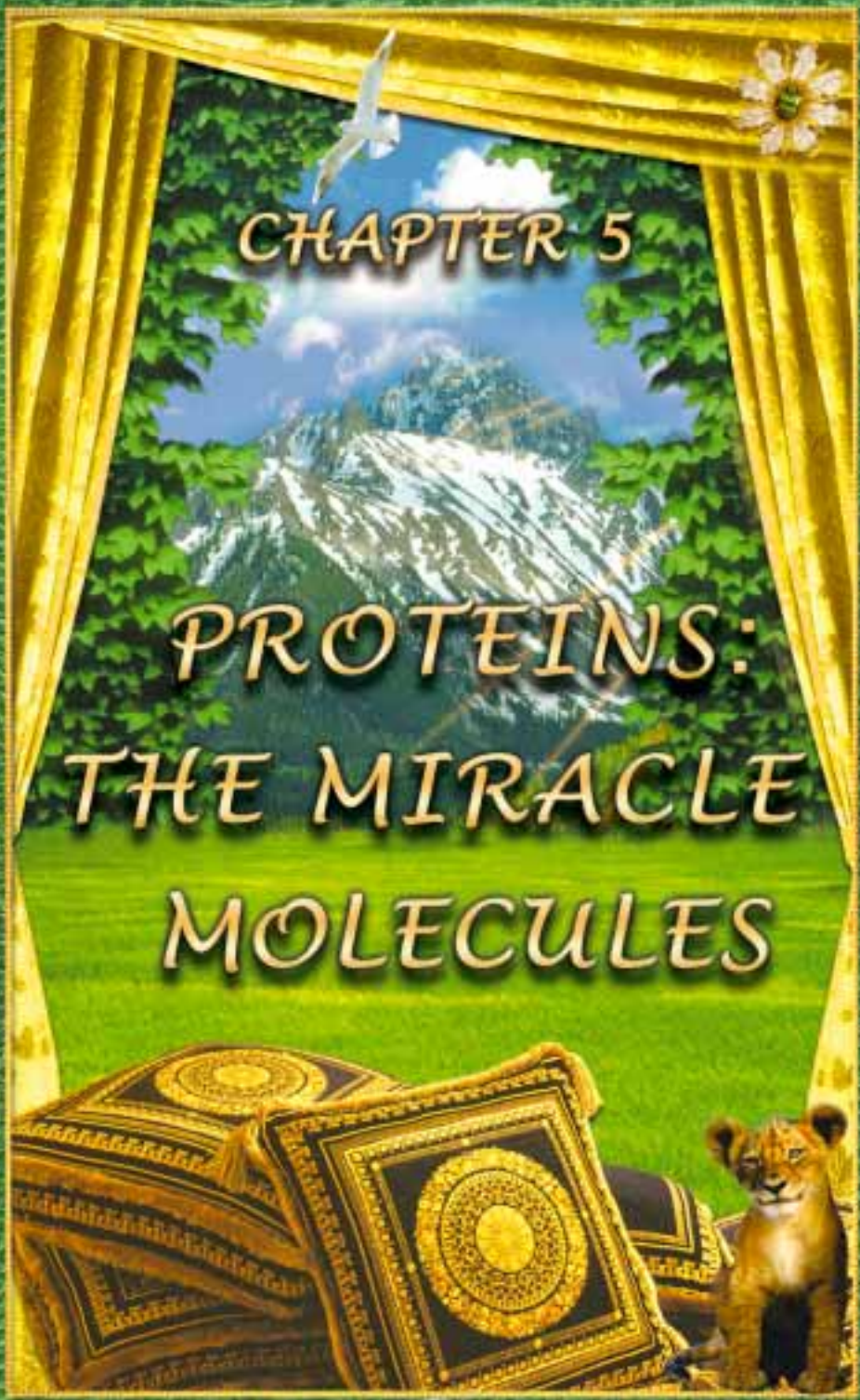
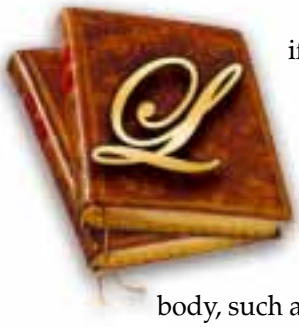

Plasma membrane: control of material exchanges, regulation of cell-environment interactions
Golgi complex: modification, distribution and storage of substances
Lysosome: digestion, breakdown
Endoplasmic reticulum: isolation, modification, and transport of proteins and other substances
Nuclear membrane
Nucleus
DNA and genetic control
Mitochondrion: energy production

Figure 4.4


CHAPTER 5
PROTEINS:
THE MIRACLE
MOLECULES



Life without proteins is impossible. Not only the basic building blocks of the body, they also compose the enzymes and hormones that are vitally important to human life. These complex protein molecules are specialized for vital duties and reactions in the body, such as facilitating coordination and continuing the basic functions of life.

This chapter will look at the extraordinary structure of proteins and the incredibly difficult processes in the body facilitated by mechanisms that they carry out.

Consider that billions of these processes are going on at every second, and you can more clearly understand that complexity of this system within the body is beyond our comprehension.

Twenty different types of amino acids found in nature are used in protein structure. Actually, depending on the number used and their order, an infinite number of proteins can be made from only these 20 different amino acids. If you compare any protein to a chain, amino acids are the links in the chain. The number of amino acids in different protein types within living things is between 100 and 3,000. Random removal, addition, or changing of the order of just one amino acid in the chain would render the protein completely useless, and in fact harmful.

Along with the location and number of amino acids, the three-dimensional geometry of the protein they form is also extremely important (see Figure 5.1). It's not enough for the amino acids to be of the right number and in the right place, they also need to fold at certain points to form a shape that lets the protein carry out its duty. To allow these folds to take place, amino acids located at sites to be folded are joined by much weaker bonds, which facilitates folding at the

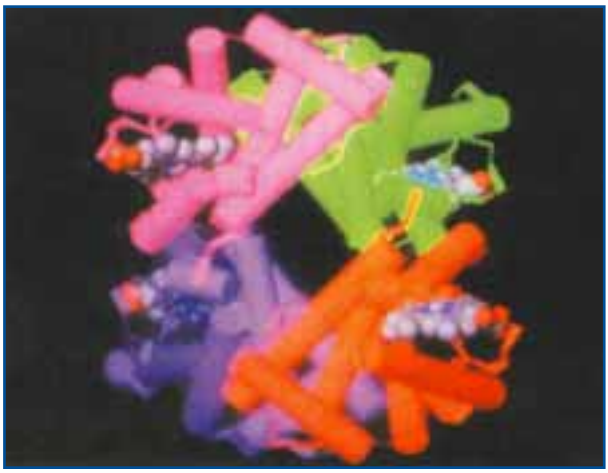


Figure 5.1
The three-dimensional shape of the hemoglobin protein found in human blood. Hemoglobin facilitates the transport of vitally important oxygen to cells via blood circulation.

right angle. If this weren't so and all amino acid bonds were of equal strength, the protein formed would be straight, without function-in fact, useless.

In short, a protein's three-dimensional shape is highly important. Only because of their 3-D shape can enzymes in particular direct, regulate, and accelerate many reactions. Even if the protein possessed the right number of amino acids in the correct order, its lack of correct geometric shape would render it useless. In order to facilitate folding, the bonds of attraction between amino acids need to be individually regulated with incredible control and sensitivity. Even the slightest detail must be determined with care (see Figure 5.2).

Since the formation of even one protein molecule requires so many processes and controls, today's technology has not been able to synthesize a protein molecule under laboratory conditions. Yet evolutionists, with their usual insensitivity and blindness, claim that such a molecule came about in the primitive atmosphere as a result of coincidences.

Let us look at the likelihood of a protein forming by chance, and then contrast this impossibility with the hopeless position of the evolutionists.

One Possibility in Infinity

In his book *Origin of Life,* Russian scientist, A. I. Oparin, one of the most famous proponents of evolution, has this to say about the impossibility of proteins forming as a result of chance:

> But even the simplest of these substances represent extremely complex compounds, containing many thousands of atoms of carbon, hydrogen, oxygen, and nitrogen arranged in absolutely definite patterns, which are specific for each separate substance. To the student of protein structure the spontaneous formation of such an atomic arrangement in the protein molecule would seem as improbable as would the accidental origin of the text of Virgil's "Aeneid" from scattered letter type.[10]

However much he appears to be on the side of evolution, this famous scientist's admission completely nullifies the theory he advocates. This is an important example of the discrepant logic that evolutionists advance. Because as Oparin states, it really is impossible for a protein to come about as a result of a series of coincidences. But even though evolutionists admit this, still they do not concede one inch when it comes to their superstitious beliefs in coincidence.

Prof. Nevzat Baban, one of Turkey's famous scientists, has the following to say about the mathematical impossibility of proteins forming coincidentally:

> It has been calculated that 10^{300} different proteins could theoretically be formed for a protein with a molecular weight of 34,000, and 288 amino acids in its chain selected from 12 different types of amino acids. If just one of each of these different molecules came together, the total mass would be 10^{280} grams. But the total mass of the earth is only 10^{27} grams… Calculations have shown that there are 5×10^{79} possible polypeptide isomers for a polypeptide of 61 amino acids, made from 20 different amino acids… this would mean that there would be 6 of these polypeptide isomers for every atom in the universe.[11]

As Baban states, for a small protein of 61 amino acids, there aren't enough atoms in the universe to cover all of the possible versions of proteins that would form by blind chance. Moreover, the average pro-

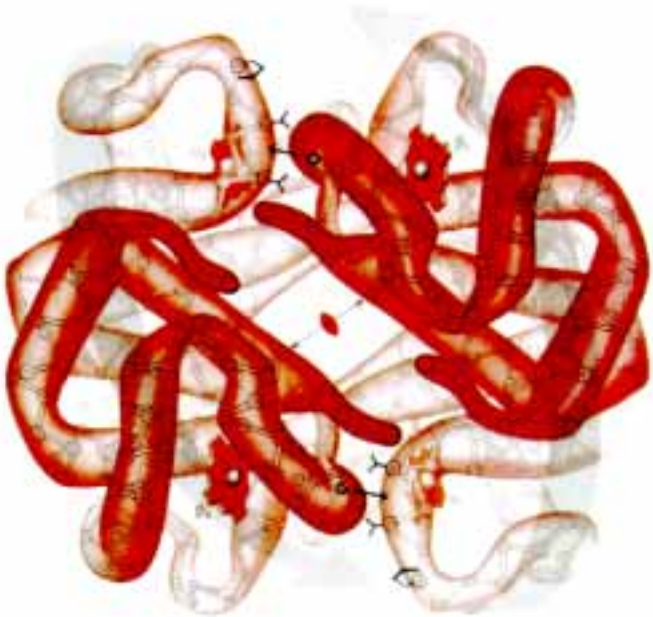


Figure 5.2 The structure of the oxyhemoglobin protein

tein is made up not of 61, but of about 400 amino acids. Even if all of the atoms in the whole universe stopped whatever they're doing and occupied themselves only with forming this protein at random, the billions of years that the universe has been in existence and all the atoms in it would not be sufficient for this protein to form coincidentally.

In short, for an average protein of about 400 amino acids to come about as a result of coincidence is not possible. What's more, when we go one step further in the development of life, we see that the one single protein doesn't amount to much. Even one of the smallest bacteria known today, *Mycoplasma Hominis H 39*, contains 600 different proteins. So in this situation we would have to apply the above probability by an exponent of 600, and be faced with a number that exceeds the limits of human understanding.

It's impossible for even one of these proteins to have formed by

coincidence, but a billion times more impossible it is for a million of these to coincidentally come together and form a complete human cell. Besides proteins, in the cell structure there are carbohydrates, lipids, water, electrolytes (anions and cations), and vitamins. All of these are used as helper molecules and as the building blocks of many different organelles.

And so it is very difficult to express the impossibility of having 100 trillion of these cells coming together accidentally, but faultlessly and completely, to form the inner and outer organs of a human being.

Coincidence, the sole "explanation" that evolution offers is powerless to explain even one of the millions of proteins found in the cell. So how can it explain the entire cell? The reliability of a theory that cannot even solve the problem at the stage of proteins, yet continues to write scenarios of how living beings came into being, is open for all to see.

At whatever stage or component of life we examine, claims of so-called "coincidence" are turned into crazy nonsense.

As an example, let's look at *levo* (left-handed) proteins.

All amino acids have a central core comprising a carbon atom with a hydrogen and nitrogen atom bound to it. This core structure in all amino acids is exactly the same. However, attached to this core is a side group, given the name of R group, which is different in each amino acid. This R group gives each amino acid its particular identity. The R group atoms can be found on either the right- or left-hand side of the amino acid's central core. Those with the R group on the left hand side are called *L-levo* (left handed) amino acids, and the ones with the R group on the right are called *D-dextro* (right handed) amino acids. The probability that each will occur is 50%. Though they arise from the same atoms and the same parts, and come together in the same way, these molecules have a different symmetry. The two forms, the left handed and right handed forms of the same molecule are called optical isomers, or mirror images, of each other.

In the inanimate world, these isomers are found in roughly equal amounts (50-50). And all of the 20 basic amino acids used in the human body can be found in both forms, levo or dextro, in nature.

But research has come up with a striking fact: From the simplest organism to the most complex, the proteins in all plants and animals are only of the levo form. In certain experiments, in fact, dextro amino acids were given to bacteria, and the bacteria immediately broke them down, and sometimes they rebuilt from the remains *levo* amino acids that they could use.

Evolutionists can in no way explain such a special, seemingly deliberate differentiation. (If life really did arise by coincidence, then there would have been no reason for this differentiation to exist.) Both forms of amino acids are found in equal amounts in nature, and each is able to bind with the other perfectly. Then how can we explain that only *levo* amino acids are found in the proteins in all living things?

As you would anticipate, this characteristic of proteins has led the evolutionists even deeper into their dead end of "coincidence." For a relevant protein to be formed, as explained before, it's not enough for the amino acids that compose it to be of a certain number, in a certain order, and have a special 3-D shape. Besides this, the left-handed amino acids must be selected and not even a single right-handed one will be tolerated. This situation places the concept of coincidence completely out of the picture.

The *Britannica Science Encyclopaedia*, an outspoken defender of evolution, states that the amino acids of all living organisms on Earth, and the building blocks of complex polymers such as proteins, have the same left-handed asymmetry. It adds that this is tantamount to tossing a coin a million times and always getting heads. The same article states that it's impossible to understand why molecules become left- or right-handed, and that this choice is fascinatingly related to the origin of life on Earth.[12]

If a coin is tossed into the air a million times, and it always comes down heads, wouldn't it be logical to accept that somebody is con-

sciously intervening with the coin? Clearly there is a conscious intervention. But despite this obvious fact, evolutionists continue to cling to "coincidence," just because they do not want to accept God's sovereignty over living beings-and this is nothing more than an obsession.

A similar situation can be found in nucleotides, the building blocks of DNA and RNA: In all living organisms, nucleotide molecules are right-handed, as opposed to the left-handed amino acids.

All of these impossible events make it equally impossible to explain the origins of life by coincidences. If we try to calculate the probability that only L amino acids will be selected for an average-sized protein of about 400 amino acids, we come up with a figure of 2^{400}-that is, a probability of 1 in 10^{120}. For comparison, the number of electrons in the universe-approximately 10^{80}-is much smaller than this. The probability of amino acids forming in the correct order and functional structure would lead to much larger numbers. If we extend this improbability to the fact that we need to form more than just one protein, we'll get bogged down in the calculations.

In the light of all of this, let us leave you with one last reminder.

Despite all these impossibilities, let's accept that a functional protein molecule did happen to come about by chance. Alas, evolution is at a loss once again! Because for this protein to continue its existence, it must isolate itself from its environment and protect itself, or else it will be broken down by natural conditions, react with other amino acids or chemical agents, and lose its identity, turning into a useless, even harmful substance.

Up to this point, we have demonstrated the impasse which evolution has met in terms of its claims in regard to the origins of life and the formation of proteins required to form a living cell. This leaves us the plain fact that God, Possessor of infinite knowledge and power, has established this extraordinary balance, allows this system to continue, and created all of the necessary substances in the necessary locations to form proteins.

Enzymes

Many complex events take place in our bodies every second. So detailed are they, that at every step, their complex reactions need to be regulated by *super overseers* to bring about order: the enzymes. In every living cell, hundreds of enzymes are found, each with its own special duty: breakdown of nutrients, production of energy from nutrients, production of macromolecular chains from simple molecules, and innumerable other similar processes.

Enzymes play a vital role in all cellular functions, from protein synthesis to energy production. If not for these enzymes, not one of your bodily functions, from the simplest to the most complex, would operate; or else they would slow down and stop altogether. You would not be able to breathe, eat or digest anything, see, or speak. The result in either case would be death.

We can compare enzymes' speeding-up of body processes to an example from everyday life. The few seconds' time it takes to read a sentence under normal circumstances would, without any enzymes, take ten years. The enzymes that play a role in bodily reactions are at least as rapid as this example.

The relationship between an enzyme and the substance it affects is like that between a lock and key. An enzyme and the substance it binds to, join together in a complex three-dimensional manner (see Figure 5.3). Each has been created to fit the other in the most appropriate ways (see Figure 5.4). What's more, this harmony comes about at a speed so dizzying that in one second, one enzyme can bind to 300 substances, one after the after, changing each one into the desired form and then separating from it (see Figure 5.5).

In short, cells live thanks to enzymes, and each cell produces the enzymes it needs for itself, in the required amounts.

All of this should cause an intelligent person to ask how it is that a cell can tell when a substance is needed and calculate its requirements? Does the cell itself design these enzymes that work faster than

machines and facilitate so many complex reactions? Where is the intelligence that carries out this plan?

Clearly, a person of intelligence would come to the conclusion that none of this can be the product of a microscopic structure, the cell, or a product of the smaller components found within it. The truth is clear: All of this has come about as a result of God's creation:

You will not find any flaw in the creation of the All-Merciful. Look again-do you see any gaps? (Qur'an, 67:3)

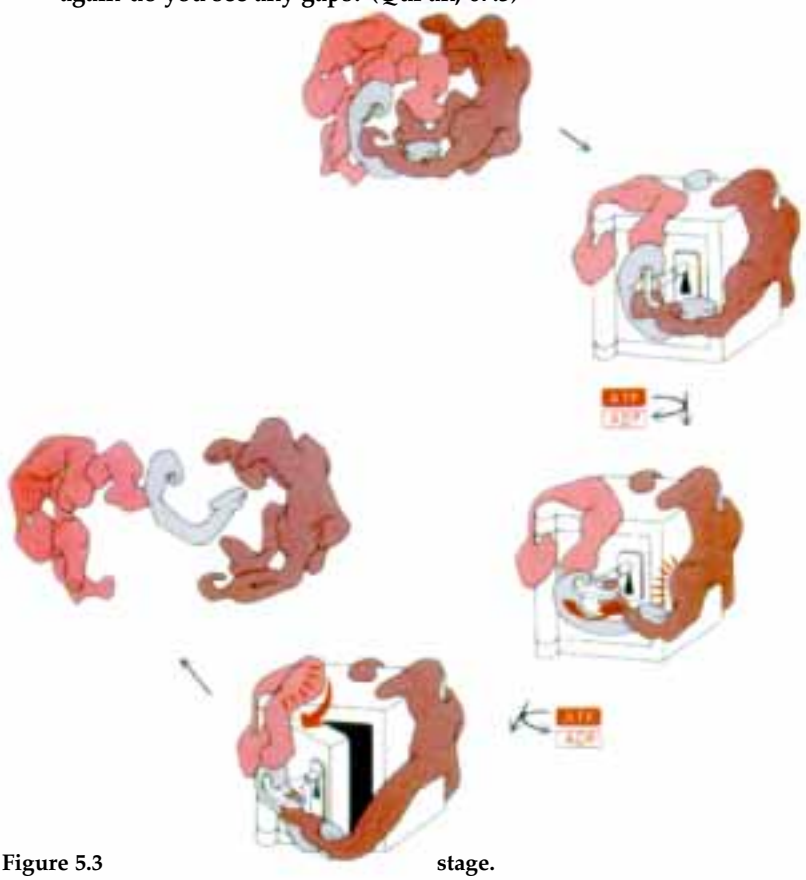


Figure 5.3
1) The enzyme fits snugly around the substrate-the substance it is to act upon-as shown in the diagram.
2) The 3-D shape of the enzyme has been created to perfectly fit the substrate, just like a lock and key.
3) It carries out its reaction on the substance using ATP energy at each stage.
4) After converting the substance into a wholly new form, it comes away from the reaction unchanged, ready to take part in another reaction.

Diagrams aim to show the snug fit between the enzyme and the substrate.

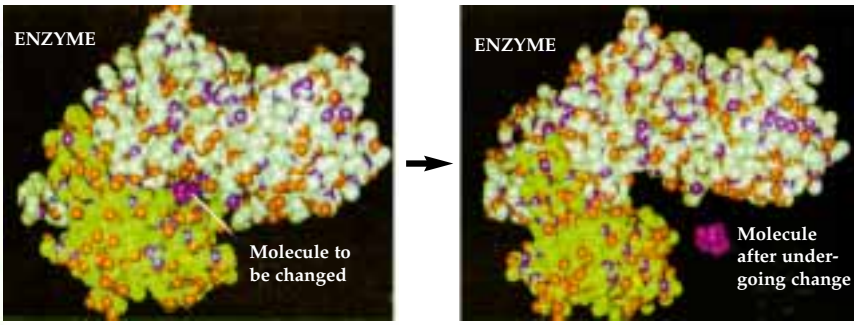


Figure 5.4
This diagram shows the perfect three-dimensional fit between an enzyme (hexokinase) and the substance it acts on. The hexokinase enzyme converts ATP into ADP, then ADP into ATP. In the first box, the enzyme closes in on the molecule it's going to act upon. In the second box, different parts of the enzyme separate, and the molecule is released, having been changed into its new state.

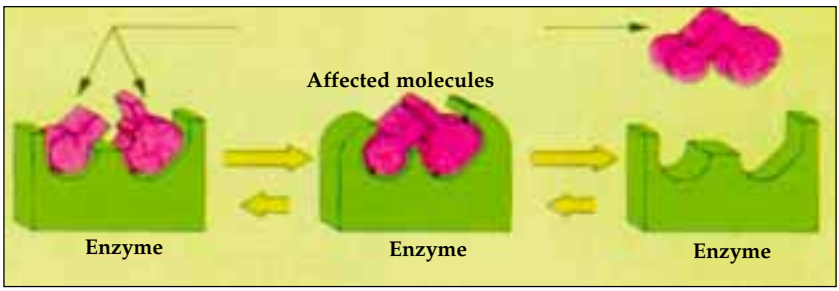


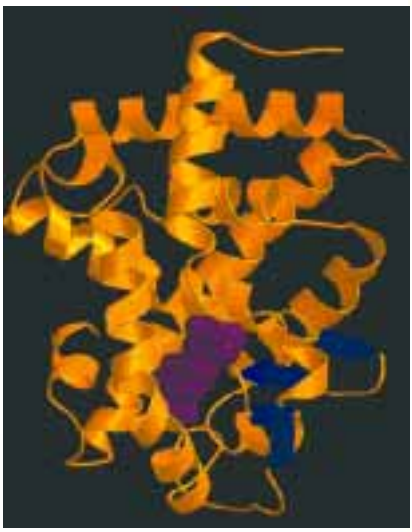
Figure 5.5
An enzyme joins two different molecules together, thereby forming a new molecule. The reaction between the molecules and the enzyme is very short, and it comes out unchanged at the end of the reaction, ready to act on new molecules.

Hormones

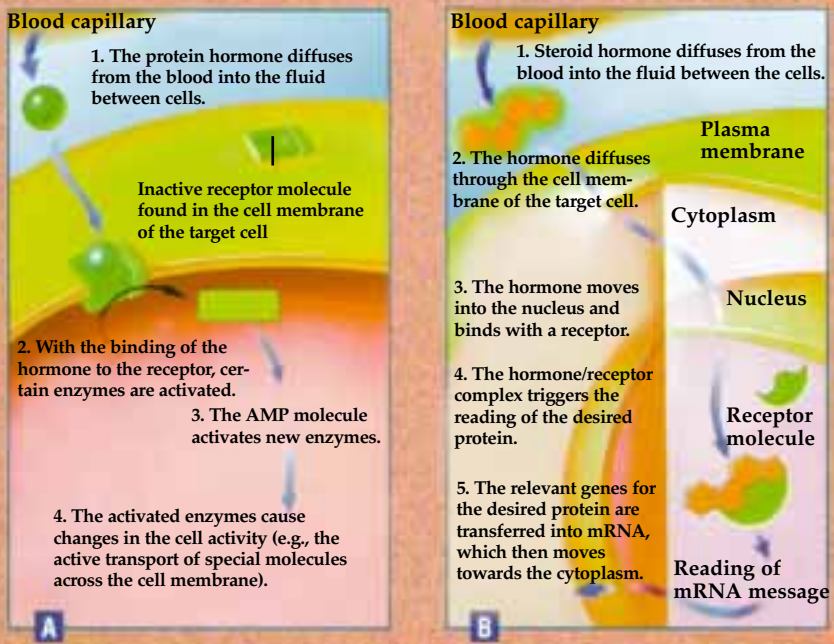
Multicellular organisms like animals and humans are composed of cells that have different structures and functions. The body depends on these cells' complex yet highly cooperative functions. The 100 trillion cells in the human body work together as if they all know each other. To the end, they carry out the functions assigned to them without any neglect or laziness. And within this perfect coordination are messenger chemicals called hormones, whose function is to carry orders between cells. The growth and internal balance of the body, control of reproduction, coordination of the nervous system, and many other processes are realized because of the messages carried by hormones to the relevant cells. Without you even knowing it, a superb command system is at work, as an unseen intelligence sends its orders to cells throughout your body (See Figure 5.6).

This superior intelligence keeps everything under control without you even knowing it. You do not have any say in this system. For instance, you cannot make your body grow as much as you want, no matter how much you may wish so. Whatever you do, you cannot order your cells to divide, multiply and make you grow. Only your cells know the pre-determined height and shape for your body. They will multiply until they reach that target and then stop growing, at just the right time.

Cells cannot, of course, carry these out through their own intelligence and will. God inspires this flawless chain of commands in them and enables them to carry out their duties to perfection.



The structure of a thyroid hormone



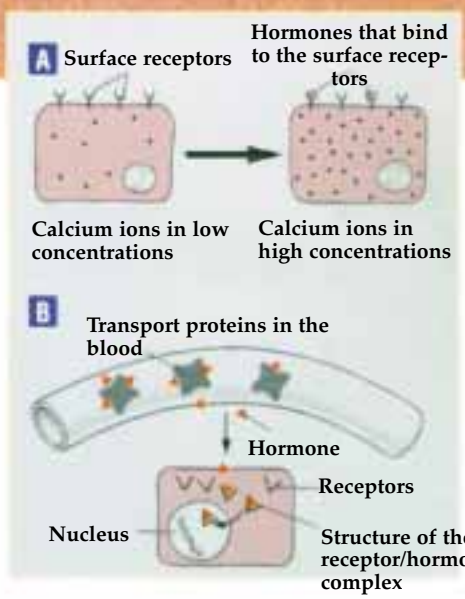


Figure 5.6 a) In the first cell, calcium ions are present in low concentrations. With the binding of certain hormones (peptide or protein hormones, or hormones such as epinephrine), the order is given to increase the calcium ion concentration.
b) Certain hormones (steroids, thyroxin) delivered via blood circulation and carried by protein transporter molecules, enter into the cell. By binding to special receptors in the cell nucleus, they facilitate the reading of certain genes, allowing for production of the desired proteins.

Mysterious Control

For life to continue, the amount of sugar in the human body needs to stay within certain limits. But when you eat nutrients containing sugar, obviously you cannot control this sensitive balance. This control is made on your behalf. When your level of blood sugar rises, an organ called the pancreas secretes a special substance called insulin, which orders the cells of the liver and elsewhere in the body to take up sugar from the blood and store it. In this way, blood sugar does not reach dangerous levels.

Let's do an experiment. Command all of the cells in your body, the liver cells in particular, to take up the sugar from your blood and start to store it.

Forget controlling them. This is impossible, of course.

You aren't even aware of your pancreas, your insulin, or your liver. You don't even realize that your blood sugar level has gone up. In fact, if two tubes of blood with differing levels of sugar were placed in front of you, you wouldn't be able to tell the difference between them. For this, you would need a laboratory with highly developed instruments. But some cells in your body, which you never see or know about, measure your blood sugar level with a higher degree of sensitivity than the instruments in a laboratory, and decide what needs to be done. Then they take the necessary measures, isolating the sugar in the blood and removing it. Thanks to this perfect system, someone who could eat a piece of cake, fall into a sugar coma and die, is made to live.

So whom do we have to thank for this perfect system? As always, evolutionists claim that this system came about as a result of a series of coincidences.

But on the basis of logic and reason, it is not possible to accept this claim. As with other evolutionists' claims, this one too is nonsense.

Evolution proposes that the human body reached its present day

form over millions of years. This means that at some stage, some organs in the human body were not around but later evolved. In that case, we have to assume that the pancreas, which controls the level of sugar in the blood and the insulin it secretes, "evolved" over stages.

However, this is defective logic, because a person with neither a pancreas nor insulin wouldn't have been able to live. Let's imagine that millions of years ago, there were half-human beings without a pancreas who walked the Earth. They would have eaten large amounts of the first source of sugar they found (sugar cane, for example), gone into a sugar coma and died on the spot. The same thing would have happened to all others like them: They would have died from a sugar coma, but without knowing the reason.

Let's assume that some of them stayed alive by strictly controlling their diets. (Though this is not really possible, because there is sugar in practically everything we eat.) This leaves us with the following question: How did these "ancestors of human beings" come to possess a pancreas and insulin?

Did one of them say one day, "You know, this sugar problem needs to be solved! The best thing to do is place an organ underneath the stomach that will secrete a hormone to balance the level of sugar in our blood"? And with an extreme effort of will, did he then place a pancreas underneath his stomach, work out the chemical structure of insulin and teach this to his pancreas?

Or did a very *successful* mutation come about one day, as a result of a flaw in the DNA of one of these half-human beings, and then suddenly form a perfectly functioning pancreas, producing insulin hormone? But such a mutation could not have occurred because as we explained in a previous section, mutations do not have such beneficial effects. And even if such a situation did come about, it would still not be enough to keep these half-humans alive. There needed to have formed-by coincidence, of course-a mechanism somewhere in the brain that would constantly control the level of blood sugar, command

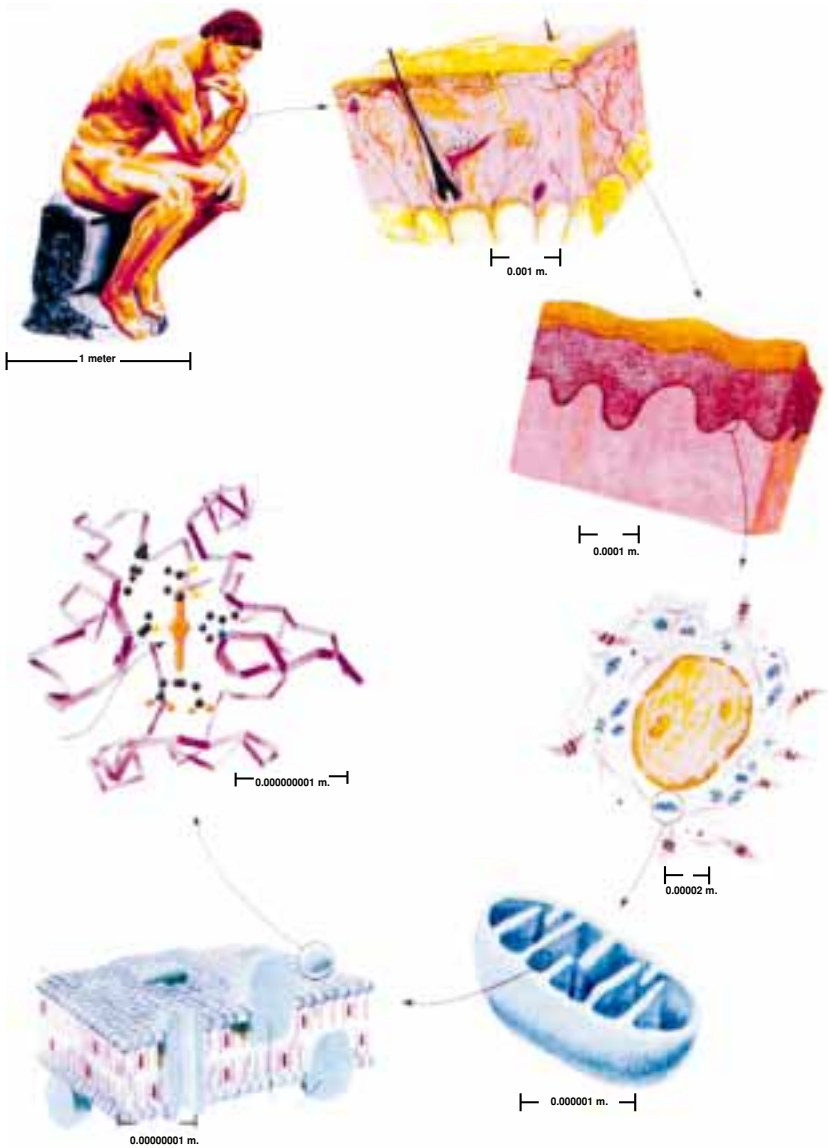


Figure 5.7
God has absolute control over every part of the human body, from the cells that make up the skin, to the organelles found in the cell, to the membrane of that organelle, to the proteins found on that membrane, to the molecules that make up those proteins. Though he may sometimes consider himself independent of Him, if mankind analyzes his own creation he will realize God's control more clearly.

the pancreas to produce insulin, and then give the command to stop once enough insulin had been secreted.

These two "explanations" are obviously illogical. The evolutionists' beliefs are exactly like this, but because they themselves know how great a lie it is, they prefer not to bring it up and try to sweep it under the carpet.

With this example of insulin, the hopeless impasse into which evolutionary logic has fallen brings us to one conclusion: The first person who ever existed had a pancreas just as we do. The "evolution" of this organ is in no way possible.

Undoubtedly the same insight can be applied to other organs, different systems and processes in the body. Because thousands of other hormones and enzymes in the body are just as vital as insulin, if not more so. All of these avert critical situations, and most entail adjustments much more complex than maintaining the control of insulin. The system that regulates blood pressure, for instance, is made up of much more complicated measurements and processes than the pancreatic system.

Wherever you look in the body, you will be faced with the same situation. A person with no kidneys will live three days, at the most. Someone with no lungs, on the other hand, won't survive for more than one or two minutes. For anyone without a digestive system, even without just a small intestine, to live a week would be considered a miracle. It would be impossible to last one or two hours without the liver and its nearly 200 different functions. It would be impossible to withstand the absence of a heart for even three to five seconds, to say nothing of the brain, obviously.

None of these organs could have formed "step by step" as a result of evolution. No human body could have waited for millions of years to receive a kidney as a result of a chance mutation. Consequently, the clear truth that stares us in the face is that the very first person possessed the exact same body structure we have today; that man was

created by God together with a perfect, faultless body.

Certainly this applies to all other living creatures as well. There is no difference between the first tiger to have walked the Earth and ones alive now. The elephant, whale, eagle and snake were all created in the first beginning, the same as they are now.

A Life Spent on the Unknown

The insulin molecule, which constitutes an impasse for evolutionists, is only one of the many hormones in the human body. And those other hormones present proofs at least as striking as insulin's.

Some of the hormones and enzymes that cells make but don't use are exported out, to be used by other cells at a considerable distance, which the original hormone-generating cells cannot recognize or know about in any way. Were the cells enlarged to the size of a man, the distances between them would be measured in kilometers. The cell does not know where and how the substances that it's produced with such care and effort will be used. But for its whole life, it continues producing these complex products, not knowing to what use they will be put (see Figure 5.8).

For example, cells that lie below the pituitary gland, which is

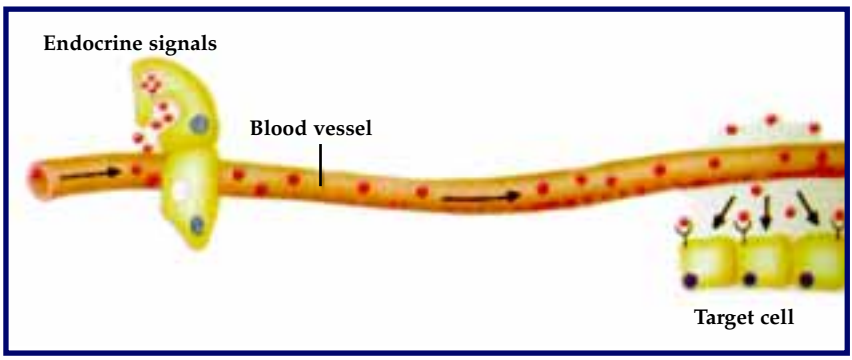


Figure 5.8
Cells that secrete hormones carry out their production to suit target cells that would lie the equivalent of many kilometers away if they were the size of a human being. The diagram shows the hormone produced in the endocrine glands, reaching their target cells.

found just under the brain, produce a very special hormone that controls kidney function. A cell in the pituitary does not know what the kidneys are, nor what they need. So how can it produce a substance so suitable to the structure of the kidneys, an organ of which it will have no knowledge, for as long as it lives? The undoubted answer is that it has been created by God specially to carry out this duty.

We can further explain this hormone production for reasons unknown with an analogy: People in a factory work their whole lives making a special complex circuit for an important electronic gadget. But these people have never seen the gadget, nor do they know what purpose it serves. In fact, they have never seen anything beyond the factory, yet they have dedicated their lives to making these complex finished circuits, which they then leave outside the factory to be picked up. Someone comes along and transports the circuits thousands of kilometers away to another factory, where they are combined with some new parts to form the gadget in question. The people in the first factory work 24 hours a day, not knowing why, with tireless, faultless obedience.

How were these factories formed? The only answer is that without a doubt, there is a will that knows and directs both factories, who has planned a certain division of labor, given the first factory the sole duty of making this particular electronic circuit, and also described in great detail how this is to be done. (It is impossible for the first factory, which cannot know what the final product looks like, to facilitate its production all by itself.)

Enzymes and hormones work in a similar way. They constantly produce substances for purposes they will never know, and devote their whole lives for this. They display not the slightest selfishness, boredom, caprice because they have been taught in a special way-or more accurately, they have been created for this. Just like everyone and everything else in the universe, they too submit to God, the Lord of all the worlds. They have no other choice. One verse expresses this submission in the following way:

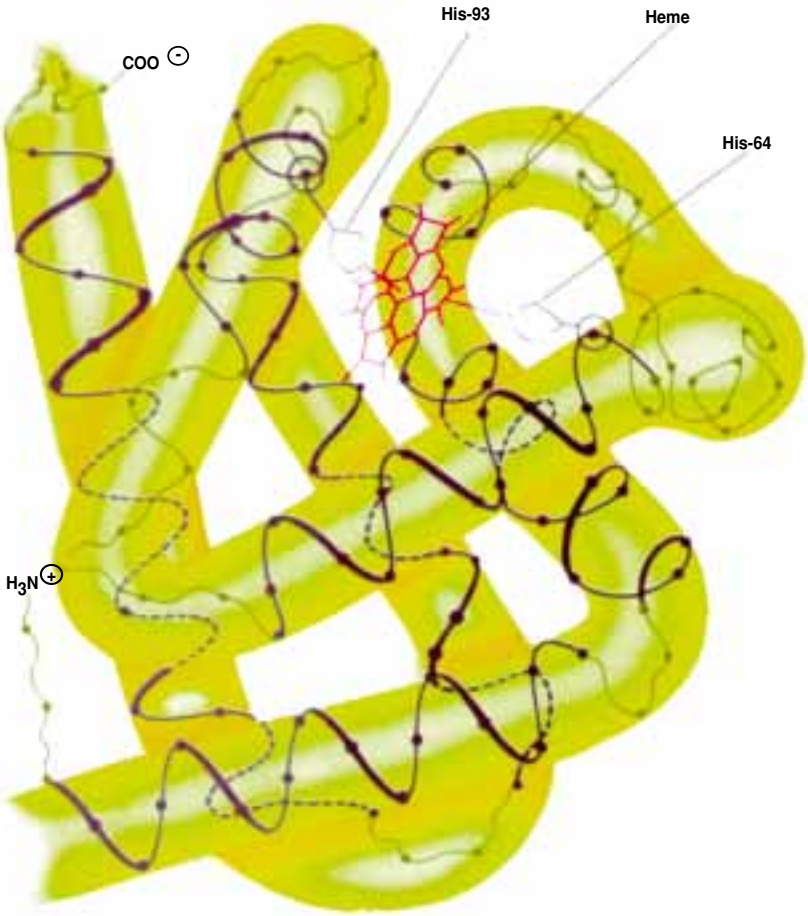
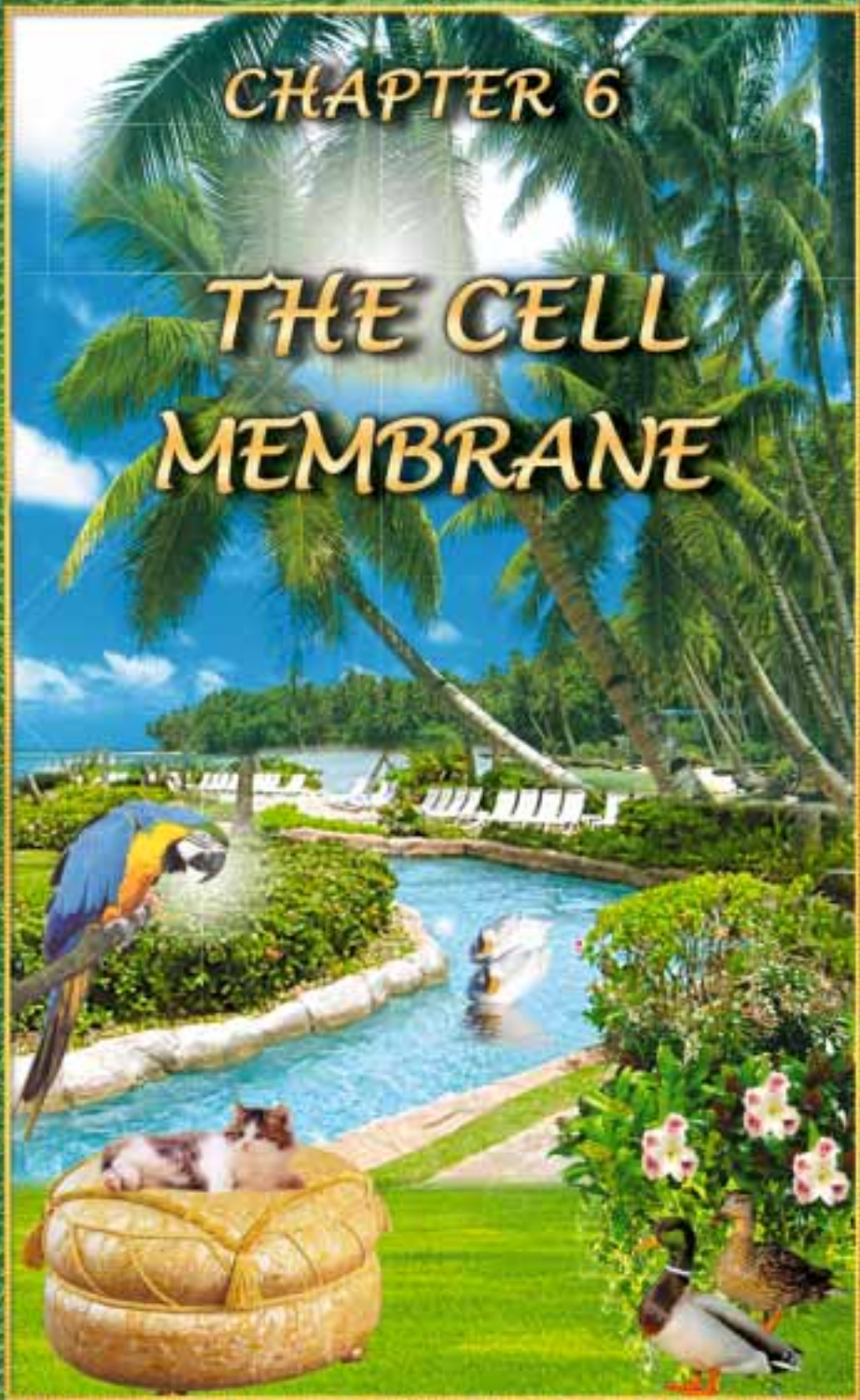


Figure 5.9
3-D shape of the myoglobin protein

... No, everything in the heavens and Earth belongs to Him. Everything is obedient to Him. The Originator of the heavens and Earth. When He decides on something, He just says to it, "Be!" and it is. (Qur'an, 2:116-117)


CHAPTER 6
THE CELL MEMBRANE

In the beginning, scientific circles considered the cell as the smallest living unit. But researchers have recently viewed the cell membrane, so much smaller than the cell in volume, as a new kind of living thing. This membrane that surrounds the cell displays features of a conscious living being, such as the ability to decide, remember, and evaluate. How does such a membrane only one hundred thousandth of a millimeter thick come to possess such features?

For your whole life, and at this very instant, 100 trillion of these membranes in your body make decisions and then act on those decisions without your even knowing it.

The cell membrane is an enclosure that determines the cell's boundaries, but its duty is not merely to surround and envelop it. The membrane also facilitates communication and interaction between neighboring cells and, probably most important of all, controls what goes into and out of the cell. So thin that it can be distinguished only with an electron microscope, its structure has been found to be made up of a double layer of lipids (fat) with proteins located on various sites within it (see Figure 6.1). It does not only display life, however. This membrane also has the extraordinary ability to make decisions and, due to its memory and the intelligence it displays, can be considered the brain of the cell.

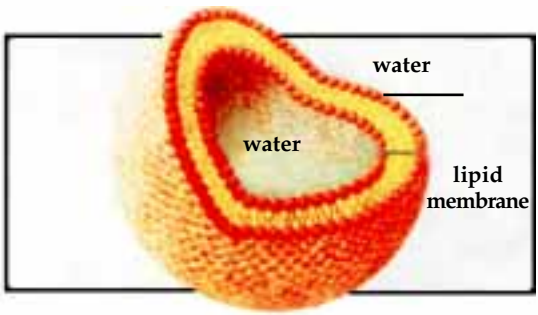


Figure 6.1
The phospholipid structure of the cell membrane, only one hundred-thousandth of a millimeter thick.

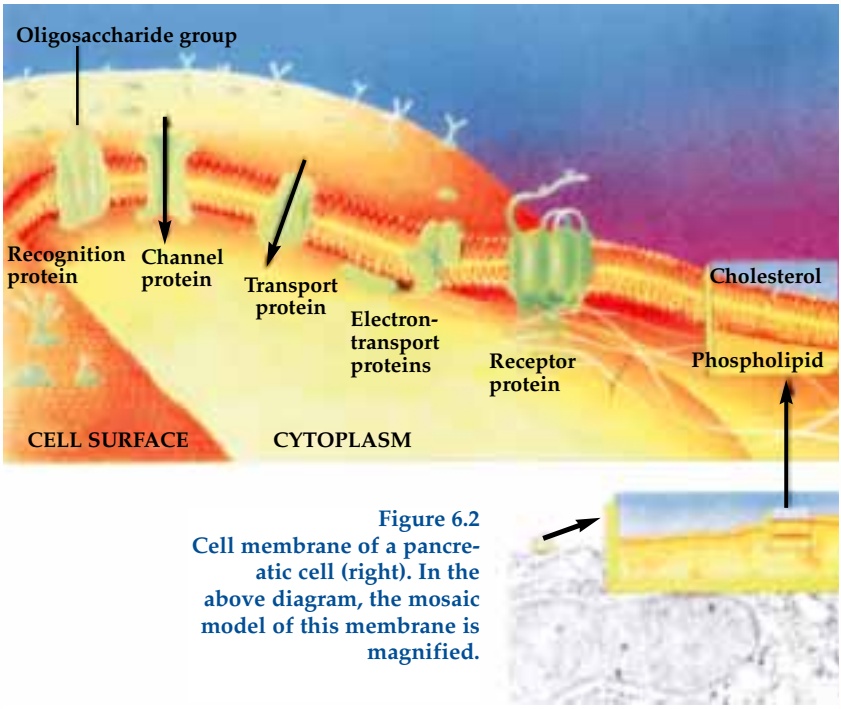


Figure 6.2
Cell membrane of a pancreatic cell (right). In the above diagram, the mosaic model of this membrane is magnified.

This thin layer-made up of unconscious molecules such as fats and protein-carries out acts that we can consider *intelligent*.

To examine it in more detail, let's first look at the structure of the cell membrane that can carry out so many processes. The membrane is composed of a double layer of lipid molecules on both sides, facing inside and outside. Located within these lipid molecules are "gates" that facilitate entry into and exit from the cell, as well as receptors that let the membrane recognize its external environment. These gates and receptors, made from protein molecules, are located on the wall, where they control all of the entry and exit from the cell with the utmost care (see Figure 6.2).

Who Is in Control?

The cell membrane's main duty is to envelop the organelles within it and hold them all together. But it also has a much more complex

duty: From outside the cell, it procures the necessary molecules for the organelles to continue their functions, and for the cell to stay alive. Of all the numerous substances in the environment surrounding the cell, this membrane identifies the ones that the cell needs and allows only these inside. It is also very economical, never taking in more than the required amounts. And at the same time, it identifies and immediately removes harmful waste products within the cell. Another of the membrane's duties is to immediately communicate to the center of the cell messages sent via hormones from the brain and different organs of the body.

To be able to carry out all of these functions, the membrane must obviously be aware of all activity and developments within the cell, it must take stock of and control the necessary and extraneous substances within the cell. And it must possess a superior memory and decision-making ability.

What sort of "coincidence" could have brought about such an intelligent pile of lipid molecules?

Let us ask a further question, which by itself is enough to bring evolution to its knees. Is the so-called "intelligence" that carries out these processes a property of the membrane itself?

We are not talking about a computer or robot, but a thin layer of lipids with the occasional protein dispersed throughout, surrounding a cell. In this cell membrane is no thinking center or a brain that can carry out such complex processes. You will never find one, because as its name suggests, it is just a *membrane*.

Such superior features, in this structure with no ability to think, are displayed by God, Who presents another clear sign to prove His existence. In the face of all this evidence, those who reject Him are left with no excuse.

The Gates of the Cell

In the cell membrane are mechanisms that sometimes act like a

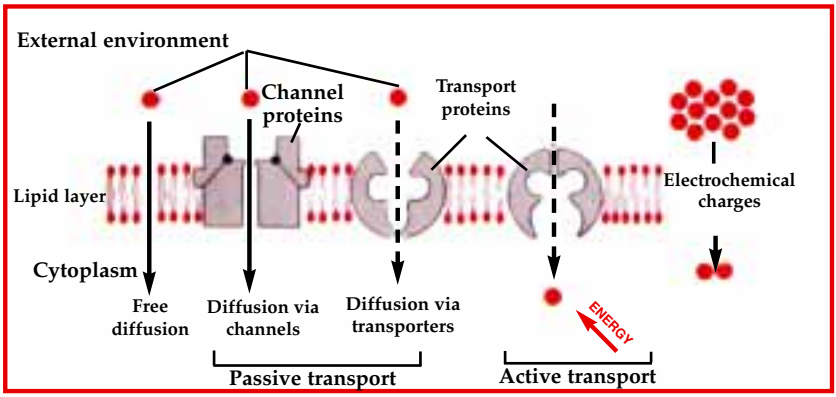


Figure 6.3
On the surface of the membrane, different gates allow different substances to be taken into the cell with the help of different enzymes. Generally, there are two types of protein gates: The first use energy for transport (active transport), selecting the necessary substances and transferring them in or out of the cell.

The second type of gates are channel proteins that open at the right time to allow a particular substance to pass through freely. No energy is expended in this transfer. Some smaller molecules need no gate and they just pass freely through the membrane. This is called diffusion.

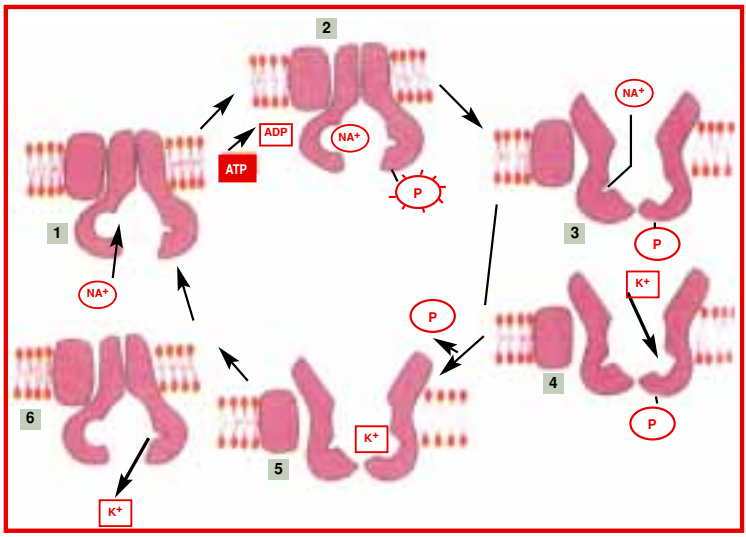


Figure 6.4
The working of the Sodium-Potassium (Na-K) pump.
1) The sodium ion settles in its own special gate within the cell.
2) ATP energy brings the pump to an active state.
3) The gate opens, and sodium ions are ejected outside the cell.
4) Potassium ion outside the cell settles in its gate.
5) The gate opens again with the energy provided by ATP.
6) Potassium is drawn into the cell.

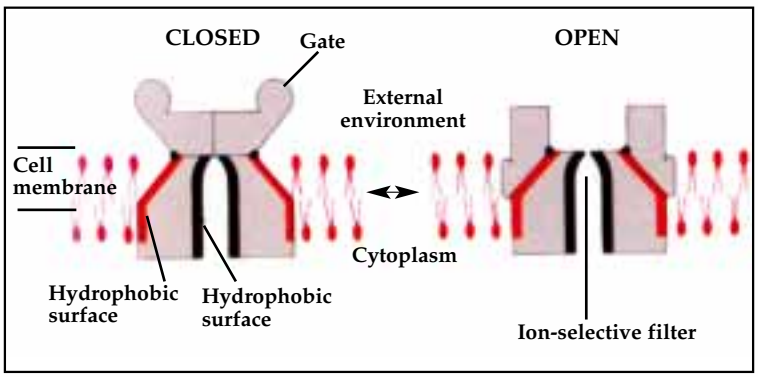


Figure 6.5
The cell membrane channels, in their open and closed state. It is not known what decides whether these channels stay open or closed.

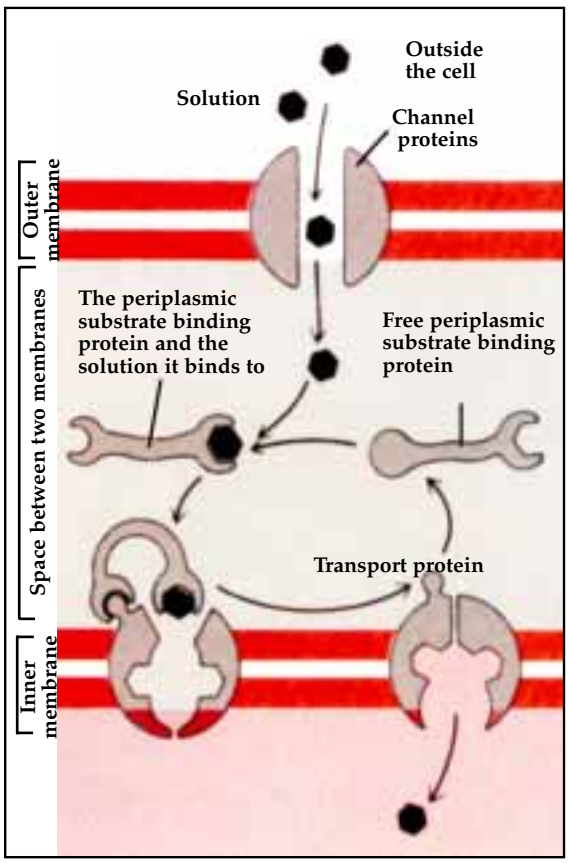


Figure 6.6
In some cells, exchange of materials takes place in a number of stages. The diagram shows how a bacterial cell's double-layered membrane takes up a solution. The solution passing through the channel proteins in the first membrane is captured by a periplasmic substrate protein, found in the periplasmic space. The protein/solution complex attaches to a selectively permeable gate in the second membrane. Changes taking place in the protein's structure allow the solid substance to pass through the selective gate. With the energy acquired from a process known as ATP hydrolysis, the substance is taken into the cell.

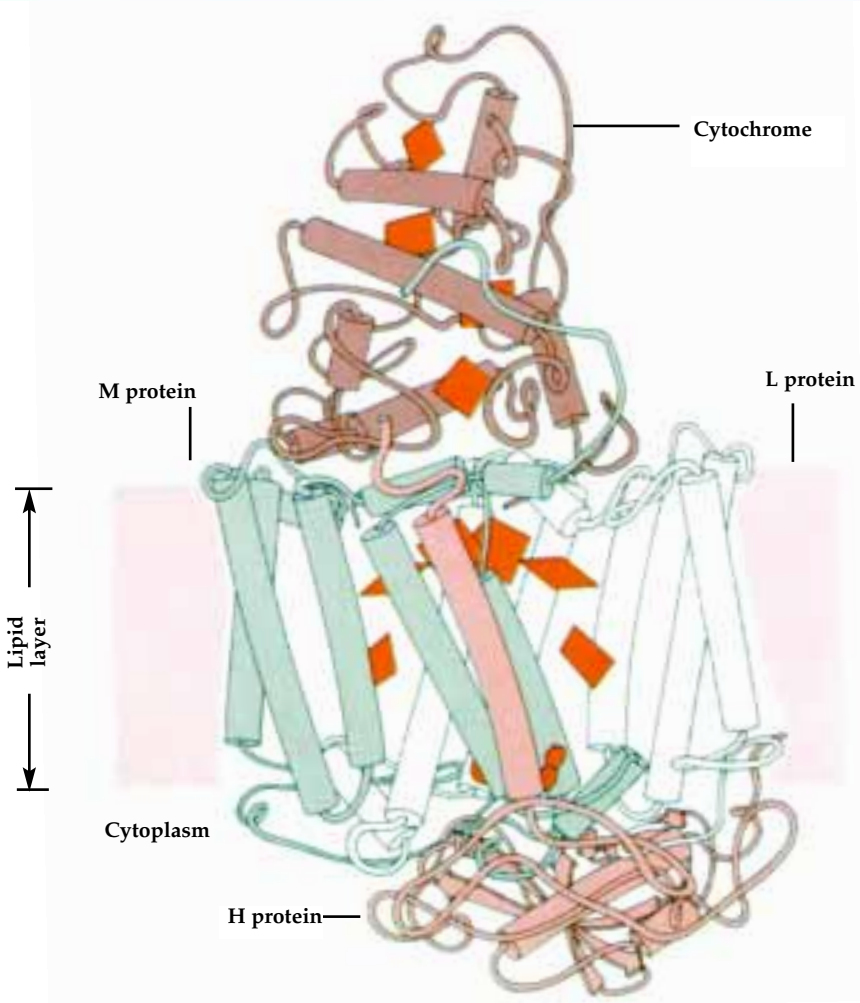


Figure 6.7
Protein gates within the cell membrane have a highly complex and superior structure. Different gates have different functions. This diagram shows the photosynthetic reaction center of a particular bacterium (*Rhodopseudomonas viridis*), made clearer with the help of X-rays. This gate's duty is to utilize light energy for the electron-transport reaction. It transfers an electron, using energy obtained from the sun in the form of photons, to the inside of the cell within a nanosecond (a billionth of a second). Once in the cell, the electron is captured by the electron-transport system and is made to take place in its reactions.
The protein complex is formed from the coming together of four different proteins: (L, M, H and cytochrome). The dark regions in the upper part of the diagram represent the electron-carrying proteins.
Such a highly developed mechanism for capturing just one electron for reaction in an area 250 millionths of a meter, and its taking place in a billionth of a second, are by themselves proofs of creation.

gate, sometimes like a pump (see Figures 6.3, 6.4, 6.5, 6.6, and 6.7). These recognize substances that the cell needs, select them, and then bring them inside the cell, after expending a great deal of energy. This is not an event to be glossed over, because many miracles occur during this transfer process, many of whose mysteries have not yet been brought to light. In order for the cell to continue its existence, substances that need to get past the membrane include electrons, even photons, small molecules such as monatomic protons, ions, water, average-sized molecules like amino acids and sugars, and macro molecules such as proteins and DNA. Sometimes, with the help of many enzymes and with a huge amount of energy expended, a molecule much larger than the gate itself is taken into the cell. Sometimes the molecule to pass through the gate is so comparatively huge that the process can be compared to threading a rope through the eye of a needle. To facilitate the passing, the gap first widens, then returns to its original state. During this process, no harm comes to either the gate, the substance passing through, or to the cell.

The Cell's Engulfing of Substances

The cell forms small vesicles that bud off from its own membrane and which carry out storage and transport processes. During the process of *pinocytosis*, a small portion of the cell membrane curls around towards the inside of the cell, taking in any nearby molecules from outside the cell. This portion of the membrane then pinches off, forming a vesicle that then enters the cell. In effect, the cell swallows the substances it needs (see Figures 6.8 and 6.9b).

In the process of *exopinocytosis*, the cell forms a vesicle within itself, around collected waste products. It then ejects this vesicle through the cell membrane, leaving substances carried by the vesicle outside the cell (see Figure 6.9a).

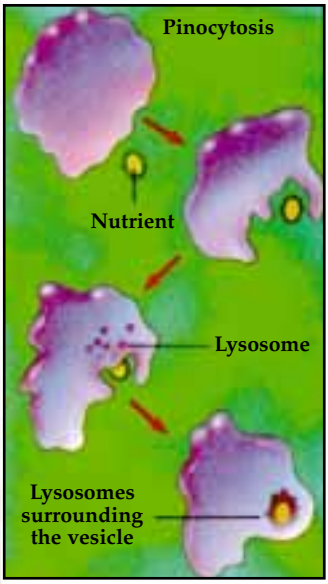


Figure 6.8
Pinocytosis seen in an amoeba, a single-celled organism. The substance taken inside is digested with lysosomes, which contain digestive enzymes.

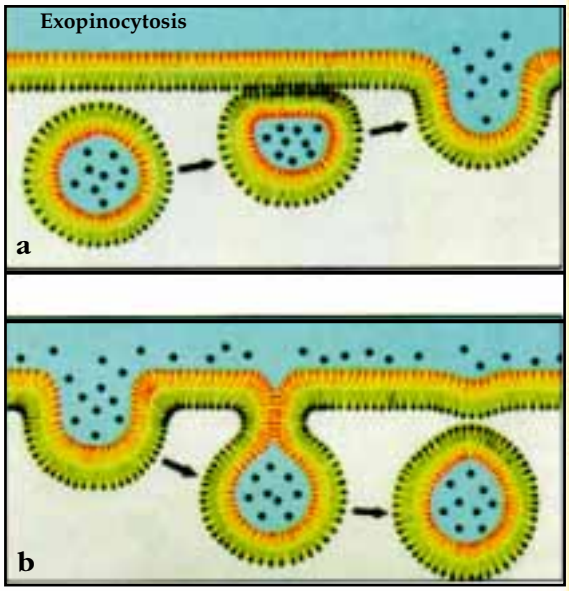


Figure 6.9
a) Substances are removed from the cell by the fusion of a vesicle formed within the cell with the cell membrane.
b) Necessary substances are taken into the cell with the help of a vesicle formed from the cell membrane.

Perfect Cooperation and Harmony

Trillions of cells in your body work together in amazing harmony. Your hair strands all grow at the same rate because the skin cells in your head cooperate with each other.

This sensitive relationship is carried out by special proteins and projections resembling hooks found within the cell membrane, which facilitate communication among different cells. These mechanisms start to form while you were still a fetus in your mother's womb. During cell division, some cells suddenly start to produce different proteins in a way not yet known. As a result of these different proteins, cells with structural differences start to appear. The cell membrane is also affected: Hook-like projections start to form on its outer

surface and as a result, only cells of the same kind can come in contact with each other. In this way, billions of similar cells come together to form organs.

How and why did these hooks come about? This is another dead end for the theory of evolution because, as you can see once again, intelligent creation is at work here.

100 Trillion Organized Workers

Each of the 1,000 workers in a car factory must cooperate with discipline with all the others. Many control systems and a chain of command are set up to facilitate this organization. Each department produces the required parts: the motor parts are made in one area, the doors in another. Everybody knows which product is to be used where. Everything is under control.

But clearly, if 1,000 ignorant people who know nothing about making cars were placed in the same factory, and told to learn for themselves what to make and how, it would result in confusion and chaos.

In the human body, by contrast, there are not 1,000 but 100 trillion cells working together in complete harmony. This means that these cells are much more knowledgeable and educated than any factory workers. Not only are the processes carried out within these cells amazing, but the coordination amongst them is equally dazzling. They can recognize each other as a result of a system in their membranes, so that a stomach cell recognizes another stomach cell, and a hair cell recognizes a hair cell.

How do two membranes recognize each other? Who trained these workers? How do they manage to perform their duties with such fidelity?

Each of the 100 trillion cells does what the body expects of it. So how does each cell know what is required of it at each second? For example, the brain sends a command to divide the cells in a particu-

lar region. Special secretions called hormones help this take place, with each hormone going to the relevant cell to transmit the message from the brain. Once the "messenger" arrives at the cell, it transmits its command to receptor proteins located in the cell membrane, which then transmit the message they receive to the center of the cell, whereupon the cell goes into action accordingly.

Can we explain a cell's ability to understand a command given via an island of proteins located within a sea of lipids, and then transmit this to the cell center, and then, this cell's obeying this command and dedicating its life to producing a substance to be used in a place of which the cell has no knowledge? Of course not! Moreover, as we mentioned before, on the membrane there are hundreds of points of entry, receptors, and controllers, all aware of each other and working together in harmony.

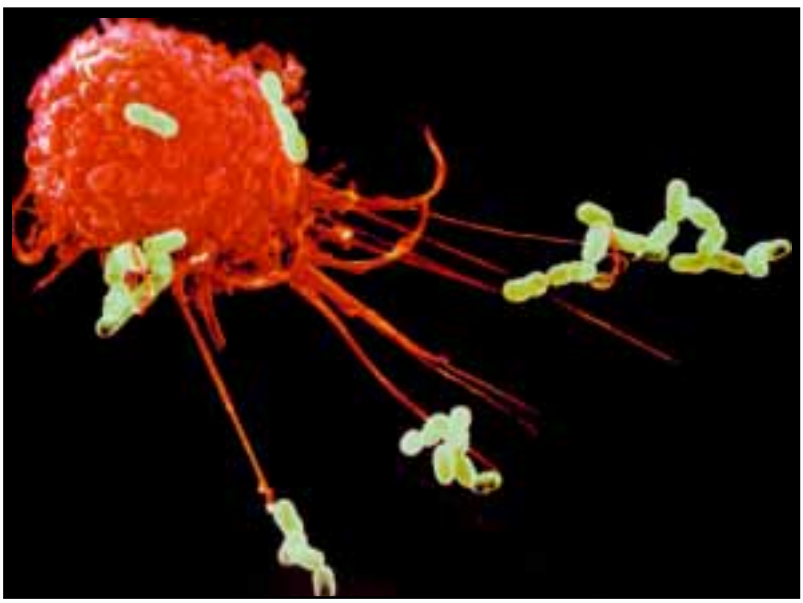
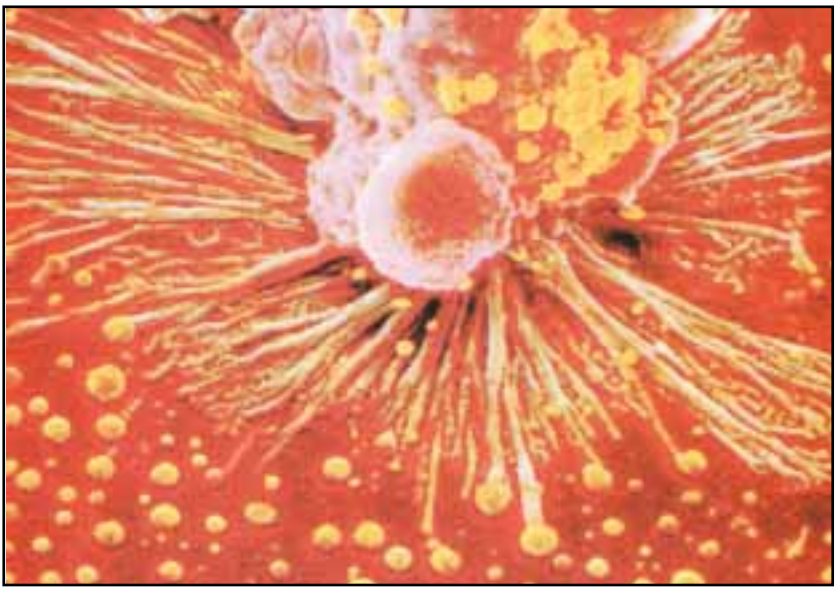


Figure 6.10
Phagocytosis – a process in which macrophages reach out and swallow many bacteria.



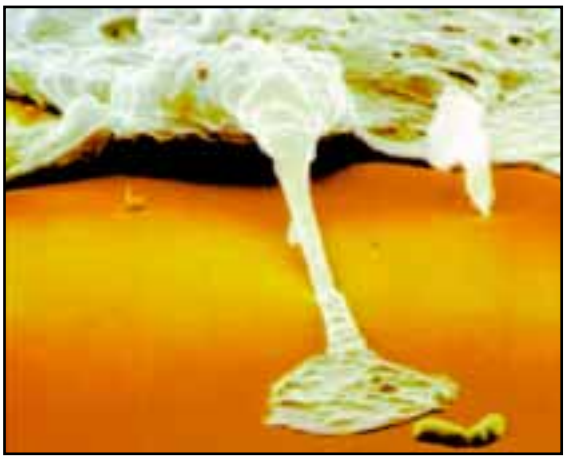


Figure 6.11
Macrophages (literally, "big eaters") are soldiers in the first rank of the body's defense system, swallowing and ingesting all manner of foreign agents found in the blood. Another of their duties is to alert T cells to help fight against enemies. The diagram on right shows a macrophage using its extensions to capture a bacterium. Above, a macrophage trying to engulf fat droplets that have entered the body.

But they are all simply unconscious protein molecules. Clearly, the cell membrane did not attain these qualities by itself. Somebody else has clearly created this system.

Such a system has obviously been created for a purpose-for mankind to realize and more fully understand the existence of the One Who created them, God, Possessor of infinite mercy and com-

passion. Anyone of conscience and intelligence will see these signs and come to know God better. One verse expresses this attitude of the believers in the following way:

> **In the creation of the heavens and the Earth, and the alternation of night and day, there are signs for people with intelligence: those who remember God, standing, sitting and lying on their sides, and reflect on the creation of the heavens and the Earth: "Our Lord, You have not created this for nothing. Glory be to You! So safeguard us from the punishment of the Fire." (Qur'an, 3:190-191)**

Raging War, Close Contact

There is a great war being waged by the human immune system, which cannot be seen with the naked eye. This battle continues day after day, every minute and in fact every second, between the cells protecting the body and the microbes and viruses entering from outside.

During the fiercest stage of the battle, when these two are in close contact, the membranes of some very special defense cells play an important role. These cells in the front line capture and then swallow all manner of foreign substances. They can do this because their cell membranes can identify any harmful substances entering the body. If need be, projections on the cell membrane extend out and capture bacte-



ria and other microbes (See Figure 6.10). Once they have been captured, they're taken in by the membrane and swallowed by the cell. During this time of struggle, the cell membrane recognizes, captures and engulfs the enemy. The cell then digests it and uses the resulting substances in ways useful for the cell. Sometimes, special cells attach to a foreign substance and render it inactive, marking it for attack by fighter cells. Obviously, the stages of this war are not as simple as related here. At every stage, an organization is at work using such "intelligence" techniques as receiving, evaluating, and storing information.

This utterly complex war mechanism cannot be reproduced by even the latest human technology. It's been working for thousands of years and keeps doing so with the same perfection. In that case, what should we conclude? Is the cell membrane-a large part of which is made up of fatty molecules and which can hardly be seen with a microscope-more intelligent than man, who claims to be the most superior and intelligent of all creatures? Or has this membrane been inspired with a much more superior intelligence? This is the truth, and anyone who claims otherwise must accept that the cell's brain is superior to his own.

Some people attribute all of this to the brain, stating, "The brain sends the commands. The brain controls everything." With this conclusion, they think they have solved a great mystery with this simple logic. Comfortable with their answer for the time being, they feel no need to think about the rest. But their squashed conscience begins to feel a little uncomfortable. If they delve deeper, they know that they will be faced with questions they won't be able to answer: Doesn't the organ called the brain arise from the same cells? Do the commands given by the brain arise from decisions made by an assortment of microscopic fat and protein molecules? If so, which cells of the brain give these orders? Or do a certain portion come together to make decisions? How do these brainless, unconscious cells suddenly gain the

ability to receive signals and give orders when they come together, and how do they act on these so perfectly?

Where is the brain that directs the amazingly coordinated division and differentiation of cells, when the human being is just a single cell and has no brain to speak of? The mother's brain? But her blood doesn't even mix with the baby's. What brain gives its orders to a test-tube baby, still a single cell fertilized externally, while it is beginning its development in a Petri dish?

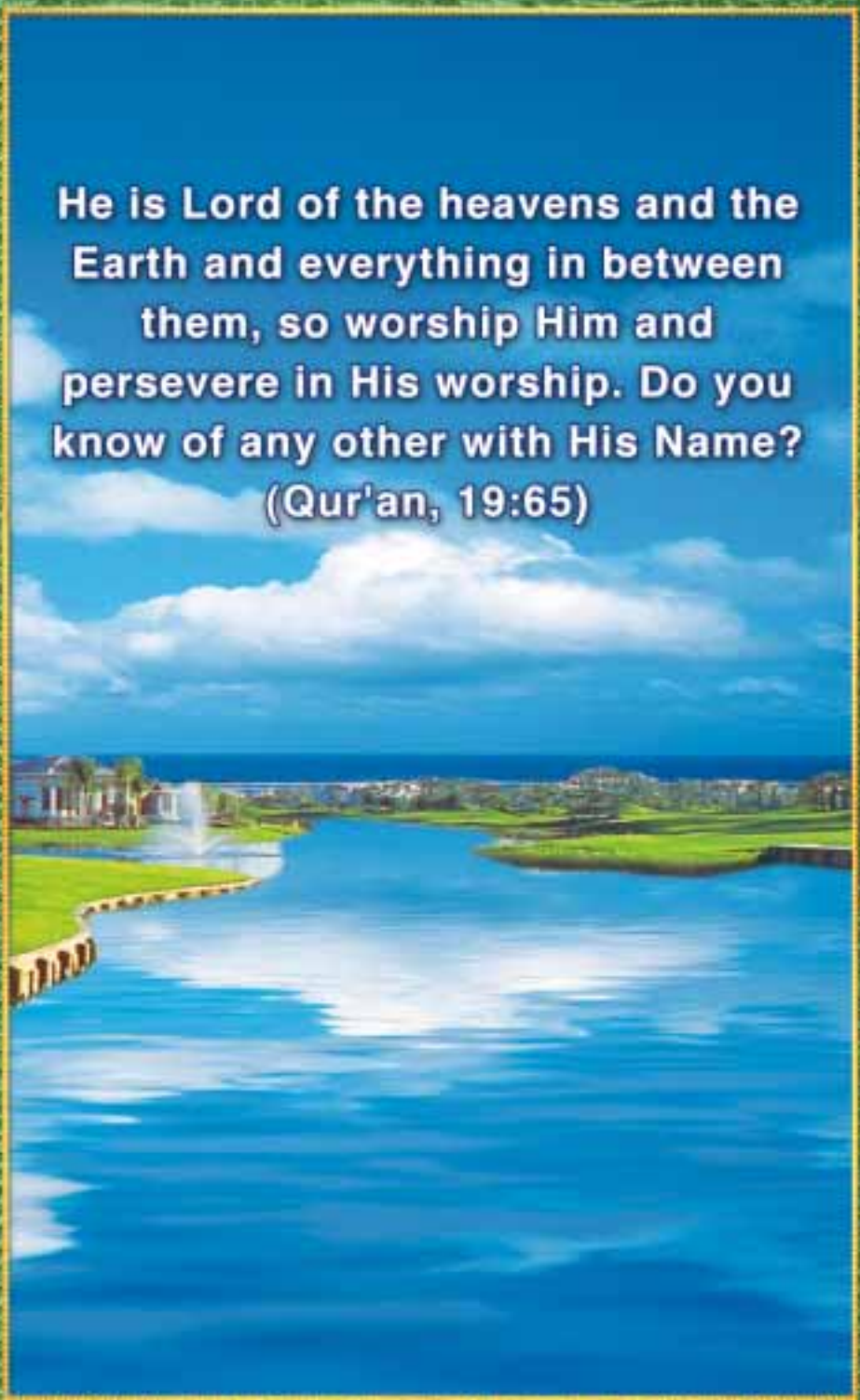
Which brain controls a fertilized egg incubated by a mother hen until it becomes a tiny chick? Is there another secret brain that directs the single cell of the chick or human baby?

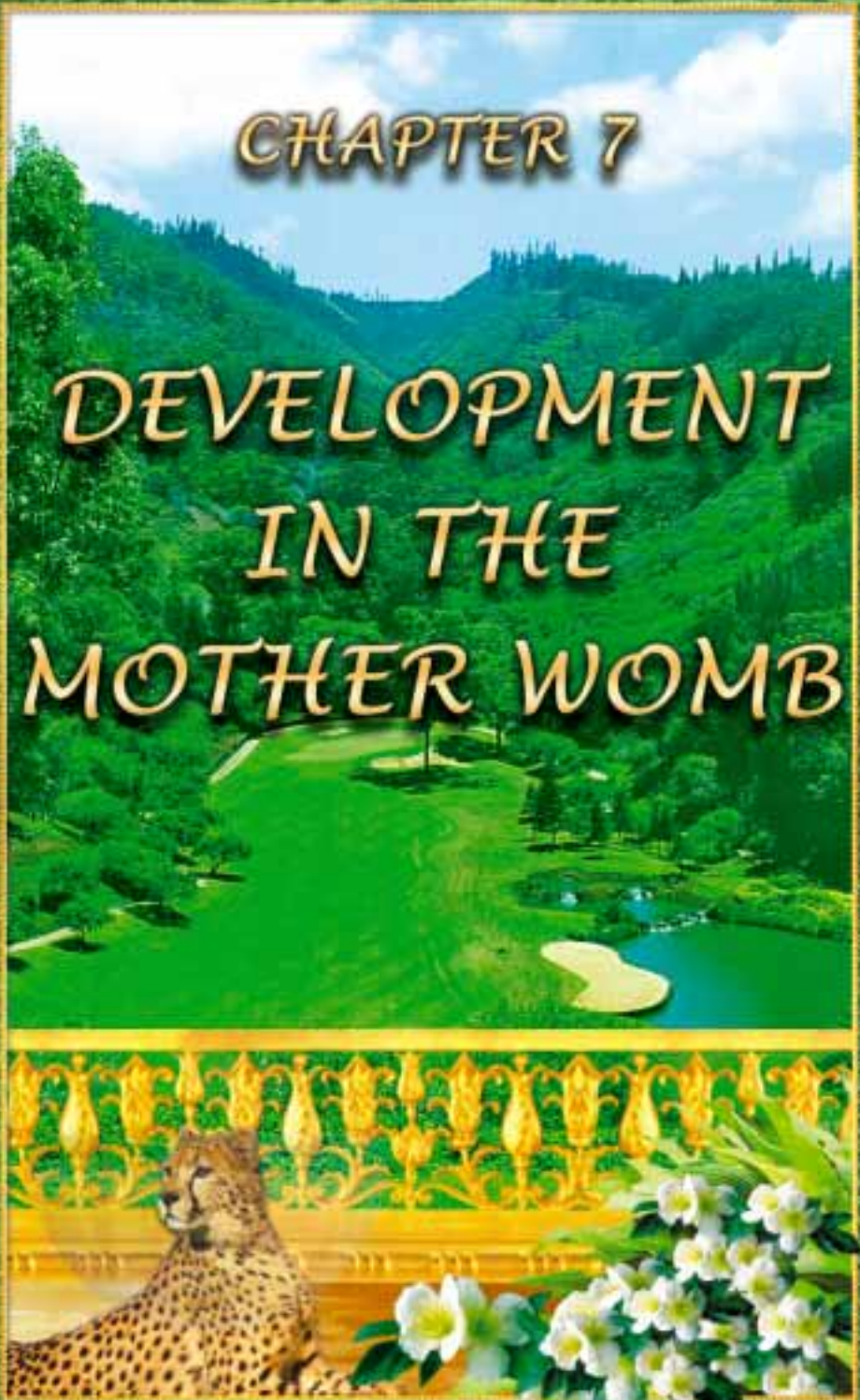
An unbeliever will face this type of questions when he starts to think more deeply. Eventually, he will have to accept these clear proofs of the existence of God and His superior creation-which is why he will continue to avoid thinking about the meaning behind these events from a wider perspective.

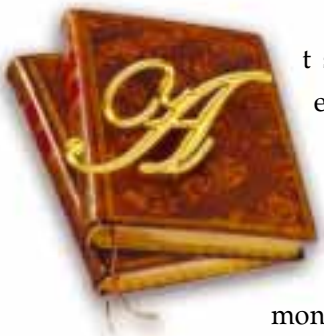
The logic of unbelief is a constant avoidance from meeting God, blinding oneself to everything that reminds one of Him and turns one to Him. Blinding oneself to the many proofs of His existence, and holding tightly to the slightest possibility assumed to somehow substitute for Him, this person has attributed his own creation, existence and the continuation of his life to trillions of cells, even to the molecules and atoms that compose these cells. In other words, he has chained himself to innumerable deities in the form of all these atoms and molecules.

A verse in the Qur'an informs us of the where and the why of the perfect coordination of these commands and their source which is nowhere to be seen:

> **It is God Who created the seven heavens and of the earth the same number, the Command descending down through all of them, so that you might know that God has power over all things and that God encompasses all things in His knowledge. (Qur'an, 65:12)**


He is Lord of the heavens and the Earth and everything in between them, so worship Him and persevere in His worship. Do you know of any other with His Name? (Qur'an, 19:65)


CHAPTER 7
DEVELOPMENT IN THE MOTHER WOMB



t some stage in his life, everybody has an extraordinary event happen to him-a great adventure we all went through, but aren't even aware of. That was the day you began to *multiply*.

Subtract your age and approximately 9 months from today's date, and you will come up with the date you started multiplying. That day, you were nothing more than a newly-fertilized single cell in your mother's womb that started forming what you now call *me*. Then you divided and became two cells. Later, you divided again and became four cells. This division continued at great speed until a little while later, you became a mass of tissue given the name *embryo*. Your bones, veins, heart, skin, eyes, ears and internal organs formed. A short while later, your heart started to beat. You became able to see, hear, feel, talk and think (See Figures 7.2 and 7.3).

This all came about as the result of a single cell, one that we cannot see with the naked eye, that began to divide. At one stage, all living creatures on the face of the Earth-horses, elephants and mosquitoes-were just one single cell. But that single cell divided and multiplied. As a result, human beings opened their eyes who were 100 million times bigger and six billion times heavier than that original cell.

Giving Shape and Form to the Human Being

The act of multiplying mentioned above is no simple process. For division and multiplication to take place, the original cell must copy itself, and these copies must in turn produce copies of themselves, in time resulting in millions of duplicates of that original cell. But this whole process is much more complex and mysterious than it



Figure 7.1 A newly fertilized egg cell surrounded by sperm cells

might seem, because at some stage of the division process, some of the copied cells receive a command to differentiate from their sister cells and form completely different structures. With time, cells arising from the same parent cell differentiate during the process of cell division to form different tissues and organ systems. Some become light-sensitive retinal cells, others liver cells, others nerve cells receptive to heat and cold, and some become auditory cells sensitive to sound waves.

How does this division of labor come about? Since a cell cannot decide on its own to become a retina, where does this decision originate?

The DNA or genetic information contained in all of these cells is

identical. The difference is in the proteins the cells produced. The first cell to produce different proteins differentiates in its structure as well. If daughter cells arise from the same cell, with the same genetic information, then how does one of them suddenly start manufacturing different proteins and begin to specialize in its structure and features?

Who gave the command for these precise copies of each other to begin producing different proteins from one another?

Obviously all these questions point to a clear, knowledgeable, and controlled creative process. The Qur'an tells us of the creation of man in the following way:

> **We created man from the purest kind of clay; then made him a drop in a secure receptacle; then formed the drop into a clot and formed the clot into a lump and formed the lump into bones and clothed the bones in**

Figure 7.2



a) A four-week-old embryo, 7 mm (0.28 in) in length



b) The embryo at five weeks is 12 mm (0.47 in) long



c) The embryo in its 9th week



d) The embryo in its 16th week.

flesh; and then brought him into being as another creature. Blessed be God, the Best of Creators! (Qur'an, 23:12-14)

So as the above verses explain, the secret behind the perfect balance and harmony of the human body's formation during the process of cell division lies in the infinite power of God. Every cell carries out the duty God has assigned to it and will become whatever He has determined with His command of "Be."



Figure 7.3
After 18 weeks, the embryo reaches a height of 18 cm (7 in).

This is why the human body is perfectly formed from cells with no wills of their own, but follow the will of God. Cells multiply by dividing and are thus able to form a faultless human nose, hand, eyelid, or kidney. They divide for as long as required and stop at the appropriate time. That cells do not divide uncontrollably-for instance, that a nose doesn't keep dividing until it becomes like an elephant's trunk-is a clear sign of this control. The feverish division of these unconscious cells to bring about a human being's internal organs and external appearance is a proof of God's infinite power.

The volition that creates a human being does not belong to these cells. The creator can only be God and, just as He has commanded the entire universe to submit to His will, so has He commanded cells. About this matter, the Qur'an tells us the following:

God-Him from Whom nothing is hidden, either on Earth or in heaven. It is He Who forms you in the womb however He wills. There is no deity but Him, the Almighty, the All-Wise. (Qur'an, 3:5-6)

In another verse the Qur'an calls to people:

It is God Who made the earth a stable home for you and the sky a dome, and formed you, giving you the best of forms, and provided you with good and wholesome things. That is God, your Lord. Blessed be God, the Lord of all the worlds. (Qur'an, 40:64)

In another verse, God addresses His creation:

O man! What has deluded you in respect of your Noble Lord? He Who created you and formed you and proportioned you and assembled you in whatever way He willed. (Qur'an, 82:6-8)

Clearly, God created man. Wherever you look, you can see traces of this creation. But alas, certain ideas have clouded the mind of man and blinded him to this great truth-and as the above verse states, *deluded* him. Evolution comes at the head of this list of delusions. But this theory, which tries so hard to reject the truth, naturally collapses when we examine each of the stages of living beings.

One of these stages is the process of cell division mentioned above. About our mysterious development in our mother's womb, the German scientist Hoimar von Ditfurth, an adamant supporter of evolution, has this to say:

> The way that the division of a single cell leads to the birth of countless cells so very differentiated from one another, and the communication and cooperation among these cells head the list of those phenomena

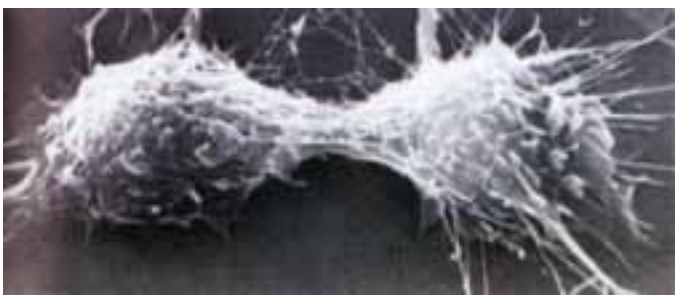


Figure 7.4
Dividing cells just about to separate.

that scientists are unable to fathom. Even if theoretical frameworks capable of explaining more or less what goes on are formulated today, the phenomenon as a whole still consists of a mass of questions.[13]

Von Ditfurth must admit that these events cannot be explained by evolution theory, though he may make mention of some meaningless "theoretical frameworks" to hide its failure.

Other well known proponents of evolution are unable to explain how a single cell can develop to become a human being comprised of 100 trillion cells with different organs and tissues. They describe this miracle as a black spot in the theory of evolution.

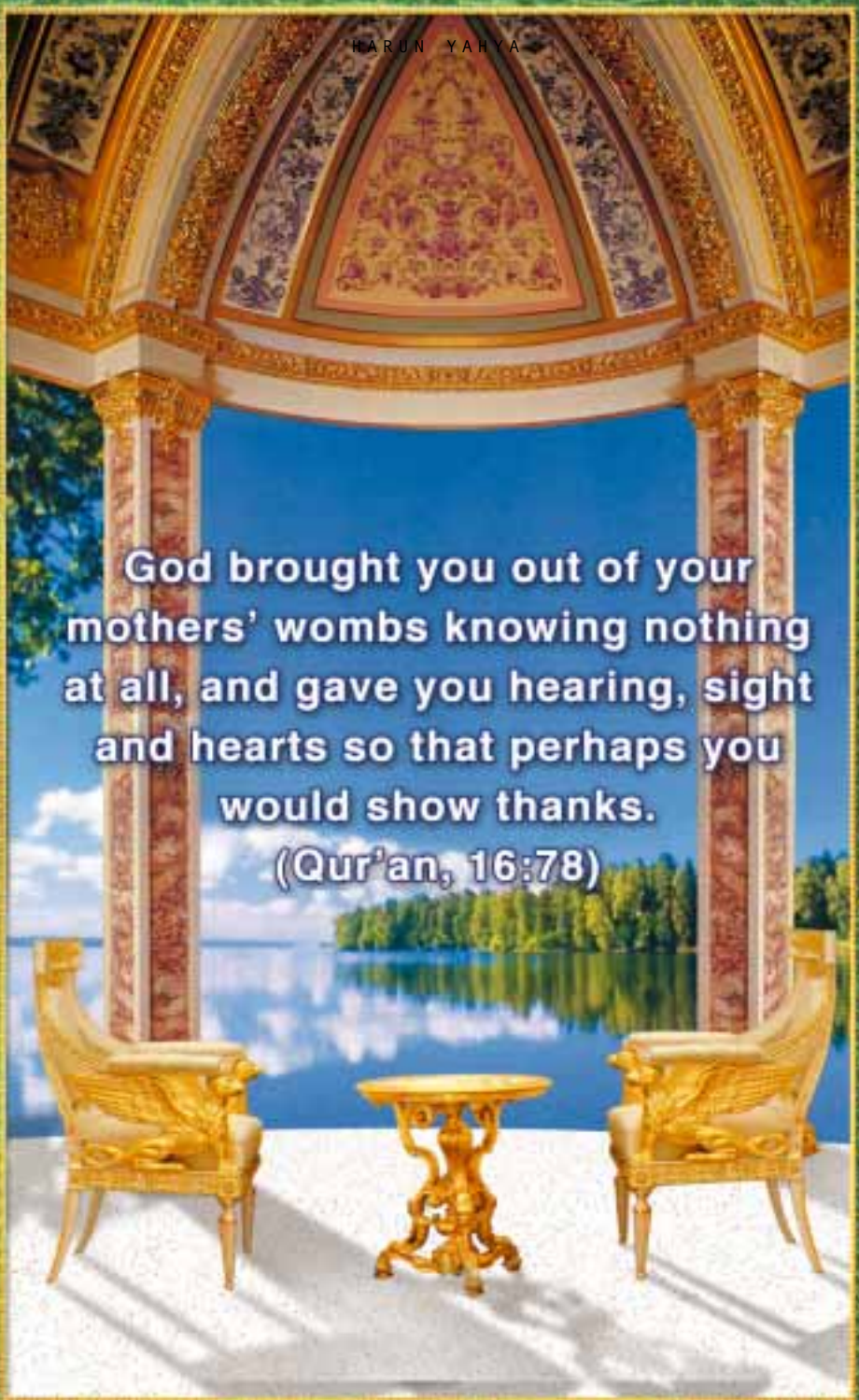
Vital Decisions

Above, we wrote of the cell's division and differentiation processes in very rough outline, but the real process is much more complex and detailed.

As a result of division, two identical cells form (see Figure 7.4). These two cells will grow and divide to form four cells that are exact copies of each other in terms of structure and function. This process will continue on in the same manner. But if this "normal" process is allowed to continue, what will form in the mother's womb is a large piece of tissue, not a baby.

After a certain number of divisions, something happens to one of the two identical cells. Instead of continuing to divide, one of them suddenly begins to produce a special protein that will determine its structure. In contrast, the other twin cell does not produce any proteins and keeps on dividing. But after about four or five divisions, its offspring cells begin to produce a protein. In this way, cells differentiate into becoming hundreds of different variations with different features, despite all having come from the same original parent cell (see Figure 7.5).

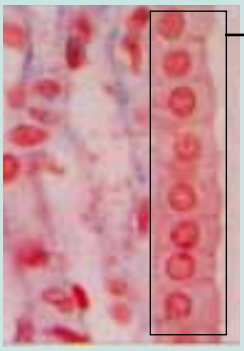
The "science" meant by evolutionists observes all of these events,


God brought you out of your
mothers' wombs knowing nothing
at all, and gave you hearing, sight
and hearts so that perhaps you
would show thanks.
(Qur'an, 16:78)





TYPE: Cells in the form of simple scales (squamous cells)
DESCRIPTION: Groups of single-layered cells
LOCATION: Capillary walls, air sacs in lungs
FUNCTION: Diffusion





TYPE: Simple cubic
DESCRIPTION: Single-layered cubic cells
LOCATION: Digestive pathways, membrane of the windpipe
FUNCTION: Secretion and absorption

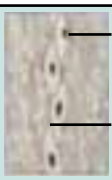
EXAMPLES OF SIMPLE EPITHELIAL CELLS





TYPE: Loose
LOCATION: Beneath the skin, generally in the mucosa
FUNCTION: Support and elasticity





TYPE: Dense and tightly packed
LOCATION: Tendons, skin and capsule around kidney
FUNCTION: Support and elasticity

CONNECTIVE TISSUE CELLS





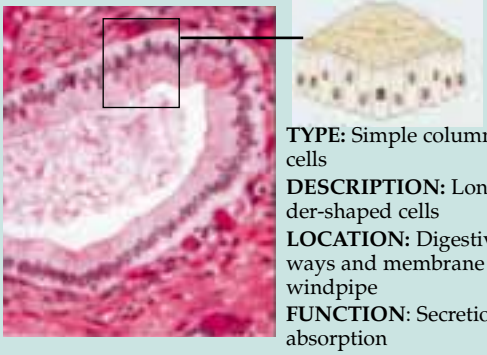
TYPE: Skeletal muscle
DESCRIPTION: Long, straight cells with a single nucleus
LOCATION: Muscles attached to the bones
FUNCTION: Facilitate the ability to move freely



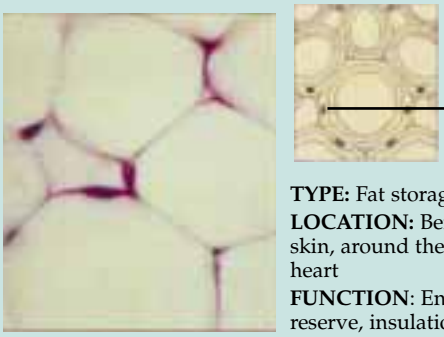


TYPE: Smooth muscle
DESCRIPTION: Long, thin muscles
LOCATION: Hollow internal structures such as the stomach

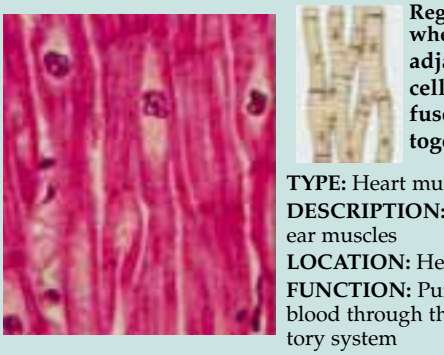
SKELETAL, SMOOTH AND HEART MUSCLE CELLS



TYPE: Simple column-shaped cells
DESCRIPTION: Long cylinder-shaped cells
LOCATION: Digestive pathways and membrane of the windpipe
FUNCTION: Secretion and absorption



TYPE: Fat storage
LOCATION: Beneath the skin, around the kidneys and heart
FUNCTION: Energy reserve, insulation, storage



TYPE: Heart muscle
DESCRIPTION: Long, linear muscles
LOCATION: Heart tissue
FUNCTION: Pumping of blood through the circulatory system

Figure 7.5
DIFFERENT CELL TYPES
Even though they've arisen from the same original cell, cells attain different features and structures during the process of fetal development. Some form red blood cells that transport oxygen in the blood, others form light- receptive retinal cells, or fat cells that store fuel in the body, and still others harden by storing calcium to form bone cells. Each cell has its own particular duty, but how do they know what their duties are? What commands them to differentiate from each other? Why do they produce different products? These events can't be explained by anything other than creation.

but cannot explain the logic behind them. A Will, Whose existence evolutionists do not wish to accept, commands cells to begin dividing and when the time comes, differentiating. In response, evolutionists give ridiculous explanations for this process they observe, speaking of these events as "miracles of nature."

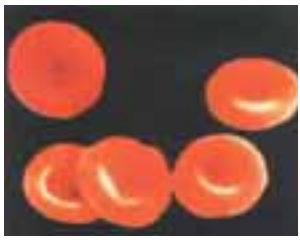
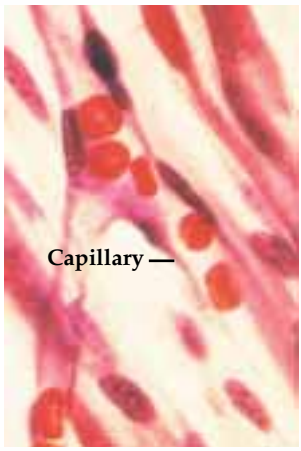


Figure 7.6
Red blood cells



During the process of differentiation, cells act as if they know exactly what they're doing. They differentiate not just in the production of proteins, but also in terms of their shape, which aligns with their future function. Cells to form nerves develop into long structures in order to transmit electrical signals (see Figure 7.7). Connective cells form spherical shapes able to withstand pressure.

Bone cells also begin to form at the embryonic stage. Some that appear ordinary begin to accumulate calcium for no apparent reason, and as a result form very rigid tissue that is extremely strong, able to carry kilograms of weight throughout one's entire life. But bone is much lighter than a substance of comparable durability, since gaps within it confer upon it lightness, elasticity, and durability.

If bone did not have these spaces allowing for the tissue to flex, then the slightest blow would shatter the bone. The *cage system* used in our modern-day buildings is a simple imitation of our bones' perfect structure, which confers durability and elasticity.

Looking into the Future – Prior Knowledge

As the embryo develops in its mothers womb, the different cells that compose it come to depend on each other. Muscle cells need red blood cells to bring them oxygen (see Figure 7.6), and red blood cells need bone marrow cells to exist in the first place.

But during development, the embryo has no environment where it can use its muscles, nor does it need muscles at this stage. It even lacks a circulatory system through which blood cells can travel. This piece of tissue in its mother's womb has the foresight to produce substances with the correct features that it will need in later life. In order for such production to take place, the information files (or genes) in the DNA, the information bank of the cell, need to be opened in advance. Clearly, the cells themselves do not work out such pre-planning. The system must be already present within the program of the cells. And just as every program has a programmer, the Master of this ready-made system programmed into the cell is the Creator of all things, God.



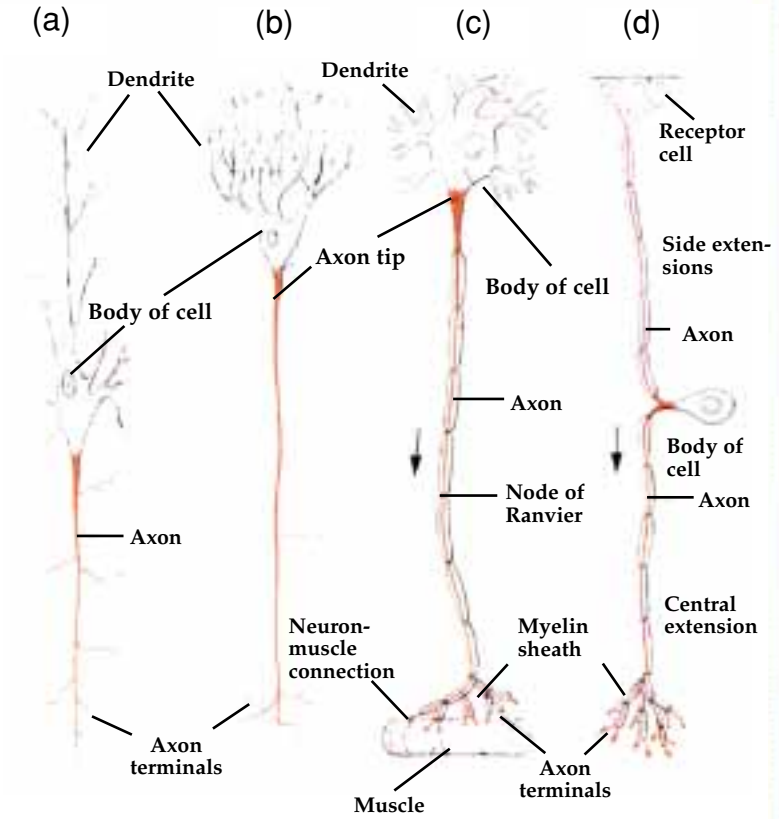


Figure 7.7
NERVE CELLS
As can be seen, nerve cells have been created differently, depending on their different duties. Two different extensions transmit signals between nerve cells: dendrites, which receive incoming signals, and axons, which pass them on.
a) A nerve cell with needle-like dendrites and a single axon
b) A brain cell with many dendrites and a single axon. The dendrites connect to hundreds of other brain cells.
c) A motor neuron signaling a muscle cell. Generally, motor neurons have one axon, which binds to the cell that they stimulate.
d) A spinal nerve cell, which generally has two types of extension. One transmits the signal received from receptor cells to the body of the cell, and the other transmits it to the brain or spine.



Figure 7.8
A brain cell with hundreds of connections

The Cell's Plan for Time and Place

Just as a particular plan is followed in a building's construction, so too do the cells follow a particular building plan. For the formation of an organism, however, a time plan is also needed to determine what is to be done when, and in which order.

If there is no determination of when and where to start construction, or when each part should be assembled one by one, then even the best plan is useless.

We know that it's necessary to construct a building in basic stages: Once the walls go up, then the roof can be put in place. But we cannot proceed to plastering the walls before installing the electrical wiring and water pipes, so while the walls are being erected, it's necessary to leave gaps where the electrical wires and water pipes can later be placed.

Thus, besides a building plan to be followed to the letter, a detailed timeframe is also needed.

The cells that will build a human being need similar planning. But almost nothing is known about which part of the plan is followed before any other. As yet, biologists have not determined

when a cell needs to ignore a certain part of the plan it's following, much less who is in control of this plan overall. While some genes-that is, files containing information about every characteristic and organ-are inhibited at just the right time when necessary, it is not known how some genes' "lock" is opened, who gives the command to suppress genes or later, to negate the command and allow the gene to resume into action. These questions have left scientists in the dark.

An invisible authority determines the correct time and place, and how the genes are to go into action. In this way too, the cell begins to make the necessary proteins to specialize accordingly. Skin cells, for instance, are rich in a special protein called keratin, which gives the skin special protection. Muscle cells are enveloped in a protein called myosin, which has the special ability to affect a similar protein and change its length. It can therefore facilitate the contraction of muscle fibers. Brain cells, on the other hand, contain helper proteins that transmit electricity. All other cells of specialized tissue produce unique proteins to the tissue that determine the particular type of cell.

In this way, some cells produce keratin in order to become skin cells and others, myosin to become muscle cells. Actually, all cells con-

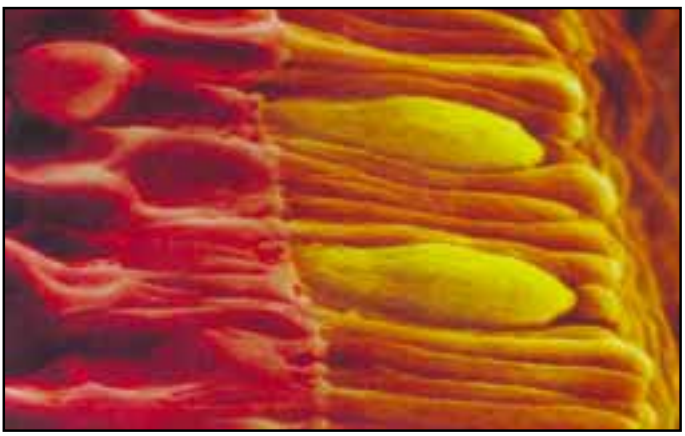


Figure 7.9 Rod and cone cells found in the eye, which convert the image formed on the retina into electrical signals passed along to the brain

tain in their DNA the genes needed to produce keratin and myosin, ready for use at any time. But while skin cells use the genes for keratin, the genes for myosin are skipped over. The enzyme that produces the mRNA finds and reads only the genes for keratin and takes them to the ribosomes, the cell's production center. This way, the cell produces no myosin or any other irrelevant protein, but only keratin. It has finally become a skin cell and nothing else. In muscle cells, on the other hand, the gene for myosin is "read" and the gene for keratin skipped over.

As the embryo develops, the DNA must use each gene in a programmed manner as the need arises and ignore others. Hundreds of proteins are needed for the formation of any particular type of cell. In other words, while many genes are used or "read" in a particular cell, many more genes coded for proteins for other specialized cells are not. The DNA and all the genes must know when these genes need to begin work, and when they need to stay out of action. If the DNA lacked this control, and if other unwanted genes were read along with ones the cell needed, this would result in a mass of tissue with cells of different types all mixed together.

Consequently, with the magnificent plan and intelligence at work here, we can see no created being who could possess such intelligence. The truth is, the Master of this whole plan and extraordinary system is God, the Lord of all the worlds; and there is no deity besides Him.

Miraculous Journey

During embryonic growth, billions of cells need to settle in their own special places, taking an amazing journey to where they belong. This is called *cell migration*. Just as important as the location where the cells are to wind up, is the timing of this event. During this development in the womb, even a tiny mistake such as a cell moving to within a hundredth of a millimeter of where it's supposed to go, or a

timing difference of a hundredth of a second, can result in a baby born with legs coming out of its head or ears coming out of its chest. But the system is so perfect that no such mistakes are made.

Following this special path, the cells travel within the embryo until they reach their destination, recognize it and stop there. Billions of cells know beforehand the path they will take and their destination. Moreover, they make decisions about starting their journey and stopping when they get where they belong. As a result, no stomach cell ever gets confused with a liver cell. The perfectly working inner organs of the human body never become just an accumulation of tissue. As the cells slowly start to take the shape of a human being, not the slightest confusion or disorder takes place.

During all these events, the migrating cells must recognize the other cells located at their destination. For example, during development of the nervous system, millions of developing neurons, or nerve cells, try to find pairs by forming connections with each other. Once they do, they join together perfectly in a magnificent feat of engineering to form the organ's final shape and structure. For instance, brain cells form about 120 trillion electrical connections in order to facilitate the necessary information flow among them. Even one faulty connection or short circuit would ruin this amazing electronic circuitry, whose like has never been duplicated artificially.

But it is impossible for trillions of cells with no ability to think or plan to work together, move together in harmony, and find their partners within a perfect measurement and plan, set out on their own and find their way to settle in the right location. Obviously, they take their journey under the guidance of a Power to which everything submits and which controls everything, and that causes them to reach their destination. This is why it is not possible for cells to lose their way, take a wrong turn or go to the wrong place, or to confuse pairs.

The Amazing Harmony of Development

Another miracle we can observe during fetal development is proportional growth-for organs to grow at the same time, at the same rate.

Each organ has a particular size. In order to attain to this exact size, nothing more or less, timing needs to be adjusted very carefully. Paired organs like hands, feet, ears, and eyes need to start forming and stop growing at the same time, so they will have reached the same size at the end of their development. In the same way, in order for any organ to be symmetrical, its cells need to move in synchrony with each other at the correct time.

What would happen if this didn't occur? Consider two organs growing at different rates, independently of each other. Imagine the result if, for instance, the brain grew at a much faster rate than the skull surrounding it. The skull, not expanded to a sufficient capacity, would squeeze the brain, leading to the death of the baby. Or else the brain will continue growing and distort the skull, leading to the damage of both. Or if the skin develops much more slowly than the body's framework, the skeleton and appendages continuing to develop at greater speed will stretch the skin until it tears. We can give many examples, from the harmonious development of the cell membrane and the cell organelles to the balanced growth of the skeleton and internal organs...

Never forget that all these mishaps would be the natural results of *coincidental* growth. In other words, if human beings develop in the womb by coincidence, there's no reason why such fatal accidents should not occur. The only reason they don't, why we come to the world as healthy human beings, is because God has created us in a controlled manner. The Qur'an speaks about the creation of human beings:

God brought you out of your mothers wombs knowing nothing at all,



MUSCULAR SYSTEM
Facilitates movement. Maintenance of posture. Heat production.

SKELETAL SYSTEM
Protection and support of organs. Production of blood cells. Storage of calcium and phosphate.

NERVOUS SYSTEM
Detection of internal and external stimuli. Control and coordination of responses to stimuli. Integration of all organ systems' activities.

ENDOCRINE (HORMONAL) SYSTEM
Hormonal control of bodily functions. Works in harmony with the nervous system.

CIRCULATORY SYSTEM
Transport of many substances to cells and waste products away from cells. Stabilization of pH and internal temperature.

Figure 7.10
Well-defined systems in the human body. Each system is dependent on the others. Without the full development of the nervous system, the skeletal system is useless. Without the circulatory system, the respiratory system will not work. Each system has been created to carry out its particular duty in the most perfect way. Blood vessels making up the circulatory system are thousands of kilometers in length, resulting in each of the body's 100 trillion cells being reached and nourished. The body is able to move thanks to thousands of different muscles doing their jobs. The digestive system breaks down nutrients in thousands of complex chemical reactions. Each highly complex system works with the other in great harmony. A ridiculous notion like coincidence cannot explain such highly developed systems.

and gave you hearing, sight and hearts so that perhaps you would show thanks. (Qur'an, 16:78)

Another verse explains the creation of human beings:

He created you from a single self, then produced its mate from it, and sent down livestock to you-eight kinds in pairs. He creates you stage by stage in your mothers' wombs in a threefold darkness. That is God, your Lord.



LYMPHATIC SYSTEM
Return of cellular fluid to blood. Important role in immune system.

RESPIRATORY SYSTEM
Provides oxygen to cells and removes waste CO_2 from body.

DIGESTIVE SYSTEM
Digestion of nutrients, preparation of nutrients for energy production.

URINARY SYSTEM
Removal of waste fluids from cells.

REPRODUCTIVE SYSTEM
Male: Production and transport of sperm.
Female: Production of egg cells and development of embryo.

Sovereignty is His. There is no deity but Him. So what has made you deviate? (Qur'an, 39:6)

While growth in the womb continues, an even more amazing event takes place. While some cells continue to divide, others kill themselves, thereby allowing certain organs to take shape. During the development of the hand or foot, for instance, some cells die off according to a certain pattern in order to form the fingers.

At this point, we are faced with a question: Do these dying cells know beforehand the structure of hands and feet, so that they sacrifice themselves for the living being who will use them? The dying cells may not know what they are dying for, but certainly seem to know the structure, shape, and working mechanism of the organs to be formed in their absence.

But accepting for a moment that these cells *do* know all this, still

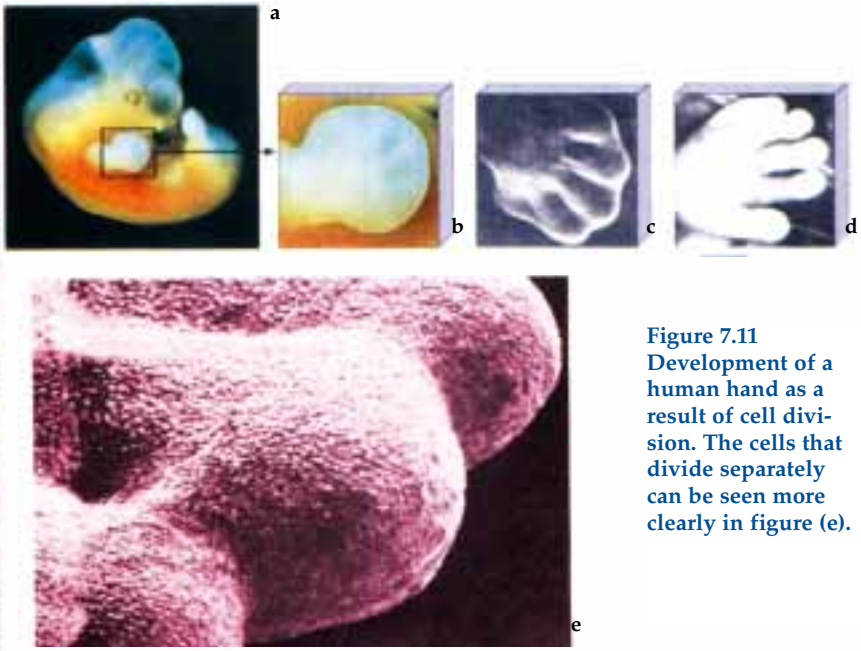


Figure 7.11 Development of a human hand as a result of cell division. The cells that divide separately can be seen more clearly in figure (e).

we're left with a situation that uproots the logic of evolution and causes it to collapse. Evolution states that all living things partake in the struggle for survival. But here, certain cells are sacrificing themselves for a higher purpose. Not possessing consciousness, how did these cells come to attain such a self-sacrificing nature, which is rarely to be found in human beings?

Mankind's physical characteristics, just like everything else, come about through God's will and command. You owe your hand's existence to the cells that God ordered to die while you were still a fetus, and whose death resulted in the shape of your hand now (see Figure 7.11). The shape of a human being, his beauty, his height and all other characteristics that he thinks belong to him and cause him to boast so-all come about due to activity, caused by God, of tiny little cells.

One verse describes God's creation as follows:

He is God-the Creator, the Maker, the Giver of Form... (Qur'an, 59:24)

This creation is so perfect that a human being is born, covered by a layer of skin a few millimeters thick.

The noses of all human beings are approximately the same size. These dimensions have stayed the same for thousands of years because when the nose is forming, the cells stop dividing once they reach a particular size. In this way no one's nose keeps growing to an abnormal size, nor is any baby born with a nose half-developed. All organs keep growing in harmony with each other, as God commands.

The fact that each person has a unique face is a miracle in itself. Even though every one of the billions of people on the face of the Earth has two ears, two eyes, two eyebrows, a nose and a mouth, all have different faces. This perfect organization occurs differently in each person, resulting in endless variety.

From time to time, God gives us reminders of what a great bounty His perfect system is. Just a tiny change God makes in this planning can result in major disabilities, even freaks of creation. Again by His command, illnesses like cancer arise when cells do not stop dividing, but keep on multiplying. One wisdom in this is that people can remember they need to be grateful to God for everything they have. If they fail to thank Him, they will be faced with this question: **"Do you then disbelieve in Him Who created you from dust, then from a drop of sperm, and then formed you as a man?"** (Qur'an, 18:37). And in the Afterlife, they will receive their punishment for their denial.

Cancer

What if a cell that you cannot see with your eyes, a cell in any organ in your body that normally lives in harmony with trillions of its friends, suddenly starts doing something it is not meant to do?

What if this tiny cell that has performed its duty perfectly, 24 hours a day for its whole life, suddenly starts dividing when it is

meant to stop-and keeps on dividing, with no regard for its surrounding tissues?

This tiny cell, that you're not aware in your daily life and don't much care about anyway, could become a cancer cell that terminates your life.

Diseased Cells

In its widest definition, cancer, is abnormal behavior displayed by cells for reasons not yet understood. It can begin in any cell at any time, anywhere in the body.

Cancer cells divide at a much faster rate than their normal neighboring cells which stop dividing when they reach maturity. Cancer cells, however, never stop multiplying as long as they can enjoy a supply of nutrients.

A change occurs in the interactions of cancer cells with the cells around them. Compared to before, they display more independent, egotistical and even *bad neighborly* relations. For instance, the cells lose their stickiness, one of the most important factors in development: As they divide, cells tend to adhere to neighboring cells because of special proteins on their surfaces. Normal cells losing this basic feature is an important factor leading to malignant growths or cancer.

The combination of the above two factors-increased rate of cell division, and loss of the cell's stickiness-is fatal. This means that from the time it mutates, this new and discordant tissue will grow rapidly.

Something even worse can take place: The cancer cells can *metastasise*, or enter the circulation and travel to other places in the body where they form new cancer colonies. After a while, these malignant cells can kill the body in which they arose.

In normal cells, limits and prohibitions stop the program of cell division when particular cells have filled their space, or when they have reached the total mass predetermined for them. The medical establishment still does not know what these limits are, how they

operate, or what gives them the order to start and stop dividing. The only thing we know is when these limits are not adhered to, cancer starts. And as long as cancer cells have a supply of nutrients they can multiply as much as they like.

The source of their nutrients is the body they live in. The circulatory system that supplies blood and nutrients to the body's 100 trillion normal cells also carries these needed nutrients to cancerous cells. Available blood vessels, however, are not enough to feed these greedy cells which multiply so rapidly. But cancer cells overcome this obstacle by stimulating the cells next to them to produce new blood vessels. Research has shown that cancerous cells secrete a substance that causes blood vessels to develop. In this way, new blood vessels reach right into the mass of cancer cells, allowing them to keep on dividing. It is still not known exactly what this secretion is, anything about its properties or how it affects cells. But as the blood vessels grow and transport more nutrients, the cancer grows also.

This is truly amazing: In order to survive and multiply, a cancerous cell synthesizes a substance that modern technology can neither understand nor duplicate. This substance causes blood vessel cells to form new vessels to bring them nutrients. This point leaves us with an unavoidable question: How did the cancer cell gain such knowledge?

In order for it to do all this *by itself*, the cancer cell must have solved the mysteries of stimulating blood vessels and must be able to secrete a substance accordingly, which will activate new bloods vessel and bring them into service. Should we see the cancer cell as possessing greater intelligence than ourselves?

Another important point is that the first diseased cell that began the cancer wasn't a cancerous cell from birth. It appeared to be normal, but suddenly with an unknown command, it degenerated and became cancerous. So if it has become a cancer cell after, where did it learn the formula for that *amazing fluid* we mentioned earlier that influenced blood vessels to produce new vessels which would nourish the cancer cells?

Undoubtedly there is a great subtlety and important purpose behind God's creation of cancer. By demonstrating what painful results come about with the slightest changes to the system He has created, God reminds mankind of their impotence in respect to Him.

Perhaps medicine will soon find a cure for cancer. Who knows? But when this cure is found, it will serve only to clarify the degree of perfection in the system God created. Once a solution is found and the details of this mechanism are more closely studied, then the subtlety, superior knowledge and intelligence in His creation will be revealed for all to see.

Cancer and Mutations

For what reason should any cell develop these properties, which are so difficult to overcome? This is still not known. What triggers the transformation of a normal cell into a cancerous one is still a big question. But some of the facts we know about how cancer begins are reminiscent of mutation-in other words, a change in the DNA of one single cell.

Mutations and cancer have the following relationship:

1) Cancer always begins with a sudden change in one cell.

2) Once that cell becomes diseased, all other cells produced from it are identical: the bad characteristic is passed on from generation to generation.

3) Cancerous cells seem stronger and more durable than normal cells and gain advantages that keep them alive.

4) Most of the cancer-causing agents-chemicals, X-rays and UV rays, for example-also cause mutations.

Consequently, the most likely cause of cancer is a change in the cell's DNA, that is, a mutation. Obviously the opposite is true: a mutation that causes a change in the DNA, would also lead to cancer.

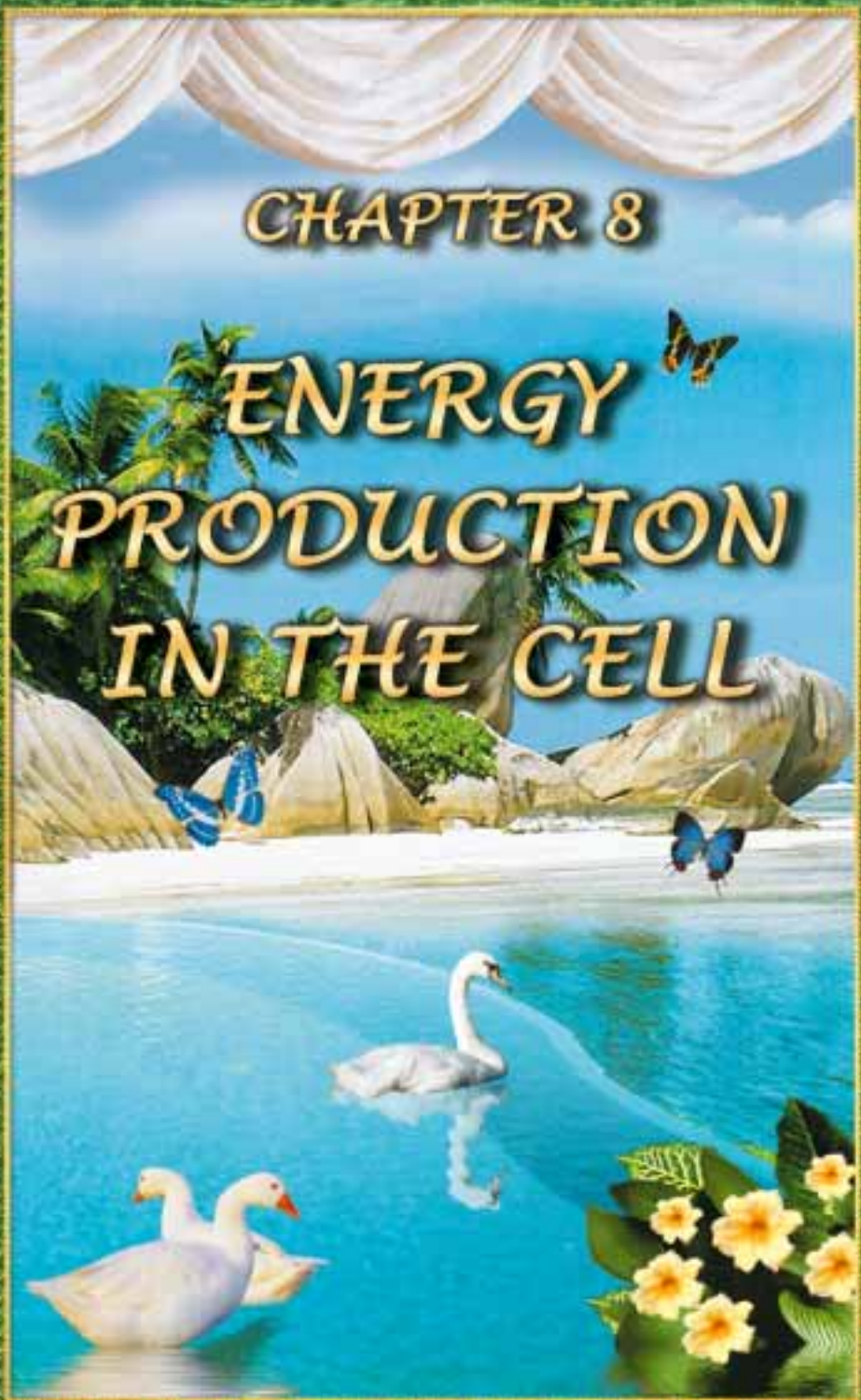
This is another piece of evidence that brings the theory of evolution to its knees once again. If you remember, evolutionists use muta-

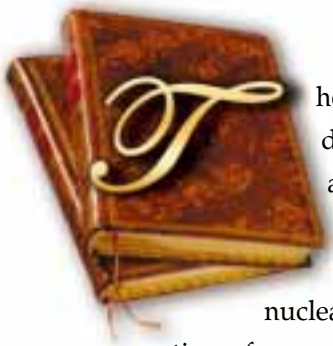
tions as one of their most important explanations for how living things could arise from one original source, yet still be so different. They claim that mutations bring about "coincidental" changes in organisms, some of which are "beneficial," leading to the formation of a new species which has adapted a useful characteristic. But as mentioned earlier, there's no such thing as a "beneficial" mutation, regardless of how the evolutionists may claim otherwise. Most mutations we know of result in fatal diseases like cancer or the ailments seen after Hiroshima, Nagasaki, and Chernobyl. Thus mutations, the last resort evolutionists take to explain the evolution of species, can only destroy an existing system.

Actually, this harmful characteristic of mutations only emphasizes once more the magnificent information in the billions of codes within DNA. Any change in the DNA which has been written with such perfect subtlety could mean the end of the organism. That even a single change can lead to cancer demonstrates even more clearly that human DNA could not have come about as a result of coincidence.

In short, health does not come about by coincidence, but is the result of a very special creation and bounty bestowed by God. Our response is to give Him thanks, because God can take away this health whenever He wills, and every day He shows us that He can create fatal sickness in any part of the body.

What befalls you, then, is to be grateful to God for giving you health and **forming you as a man**. (Qur'an, 18:37) When sickness befalls you, know that sickness and health alike both come from God. And like Prophet Abraham (pbuh), you should say, **"and when I am ill, it is He Who heals me"** (Qur'an, 26:80) and hope for His help.


CHAPTER 8
ENERGY PRODUCTION IN THE CELL



The crucial need for energy that we cannot do without is a key factor in many vital areas such as technology and industry, transport and communication. This is why massive dams, refineries, and even nuclear power plants are built, and why a large proportion of a country's budget is allocated to energy production. We spend a lot of money even on the cars we use for everyday business.

So if energy is so expensive, how does the body produce the energy it uses? Where does it get its energy from, and in what form is it used?

The Cell and Energy

In order to produce the energy it needs, the body utilizes hundreds of tiny power stations called *mitochondria* (See Figure 8.1). There, the chemical energy obtained from nutrients in your diet is packaged in packets called ATP that your cells can use. All processes in the cell that promote life take place as a result of the energy readily available in these energy packets produced in the mitochondria.

So what is the cost of this energy?

For comparison's sake, consider the gasoline that fuels your car. This is first drilled out of the ground in the form of crude oil, then transported by ship to refineries, where it passes through many complex chemical processes that convert it into gasoline. The motor in your car and the gas it uses are both made to work with each other. Your car will not run on any other fuel. In a similar way, the electricity is produced with great effort and expense in hydroelectric dams and huge hydroelectric power stations. In both cases, advanced knowledge and technology are utilized.

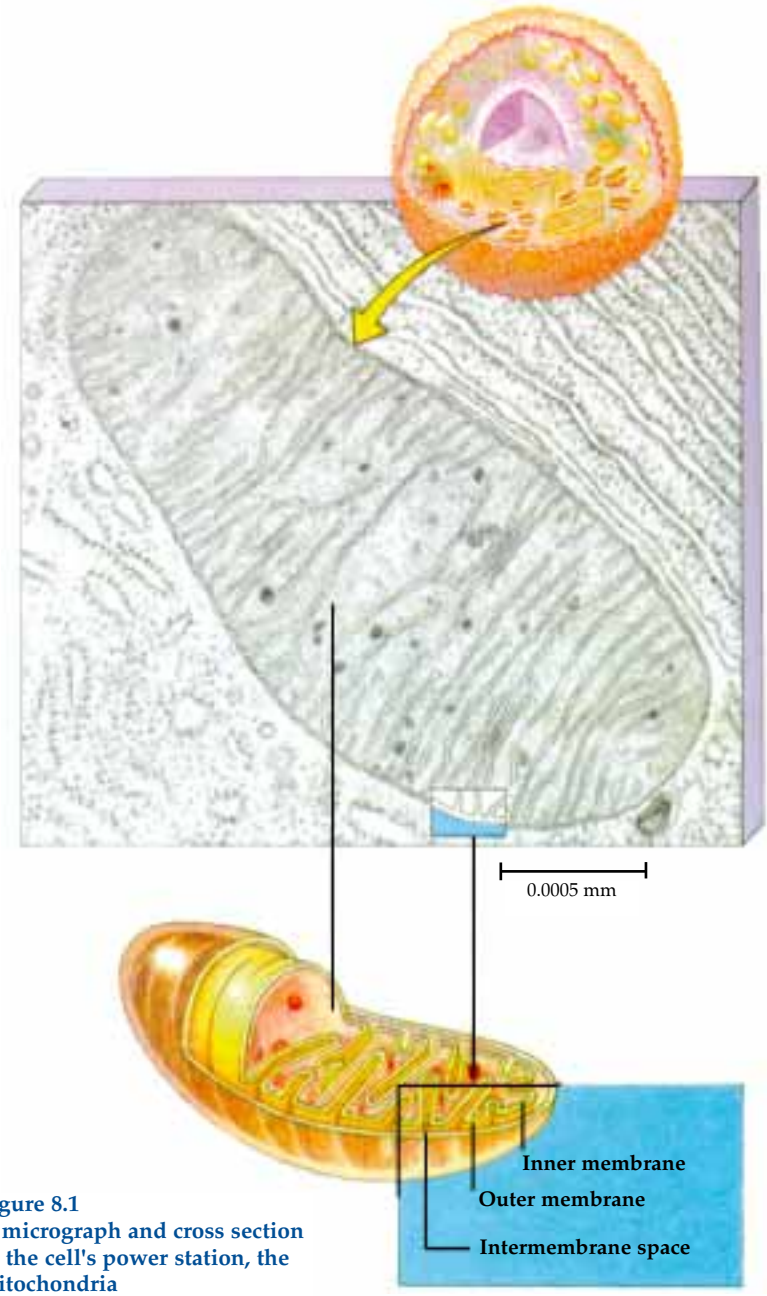


Figure 8.1
A micrograph and cross section of the cell's power station, the mitochondria

The Energy Power Station in the Cell

Present in the cell is a much more perfect system than those mentioned above. The primary source of all energy is the Sun. Plants use sunlight to make food or, more correctly, they use the energy in sunlight and store it in the form of nutrients they produce. The human body breaks down into smaller parts the nutrients it receives from these plants, and from animals that feed on these plants. These small molecules, which make up the raw materials of energy production are oxidized by the cell and taken to the mitochondria, the cell's power

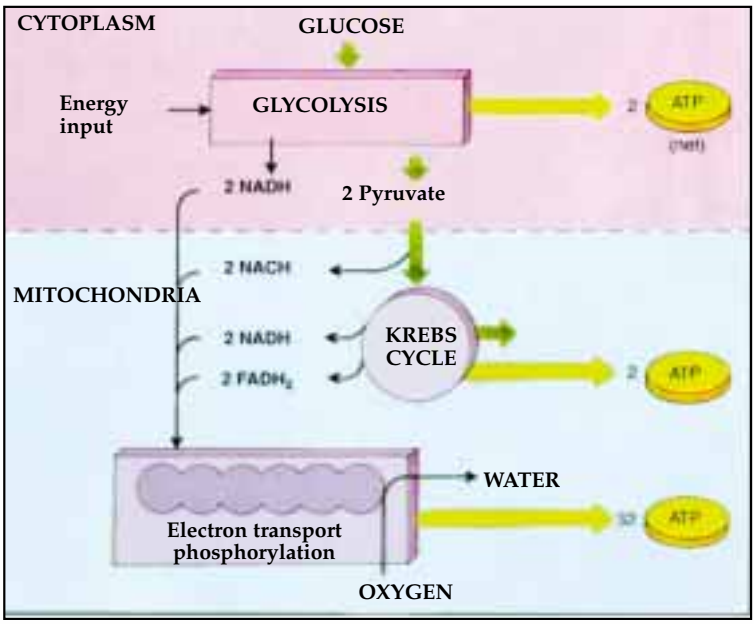


Figure 8.2
Overview of energy production in the cell. In the first step, glucose is broken down into pyruvic acid, and two ATPs (energy) are released. The pyruvic acid then enters the Krebs cycle, which generates two more ATPs. The third step of phosphorylation produces 32 ATPs. Each cell needs to carry out this process in order to continue its life, and thus, in order for you to survive. To carry out this process, all of the enzymes need to be present together. The lack of just one enzyme will cause the system to collapse, and oxygen-normally the source of life-to oxidize and kill the cell.

station. The mitochondria breaks these down even further, releasing the energy contained within, and converts this energy into ATP, a form of energy the cell can use. All the events taking place in the cell occur as a result of the energy this fuel provides. Up till now, what we have given is a very short summary of the highly complex chemical reactions that actually take place during the production of energy in the mitochondria. These chemical miracles occur in an area only 100th of a millimeter-an area too small to even conceive of.

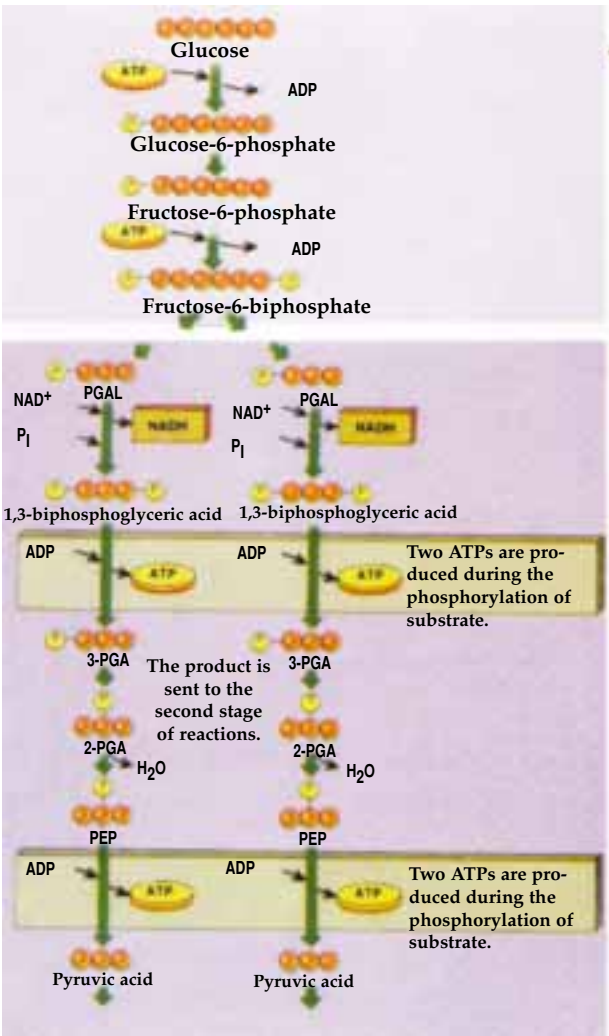
In the cell, oxygen plays the major role in the production of energy. During each stage, many different enzymes go into action. Enzymes that finish their duty at one stage give way to other enzymes for the next. These dozens of minor processes, hundreds of different enzyme transformations, and endless chemical reactions lead to the conversion of the energy stored in food into a form the cell can use (See Figures 8.2, 8.3, and 8.4).

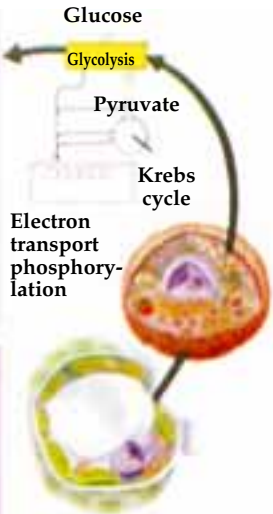
Thus we can state that the cell's power station is much more complex than a gasoline refinery or hydroelectric station.

An oil refinery is built by engineers who know the technical information and chemical analyses of crude oil in laboratories. It's difficult to imagine people who know nothing about petroleum building a refinery. But this impossibility is no problem when it comes to mitochondria's energy production in the cell. Because a fertilized egg develops in the mother's womb and divides to form a human baby, the mitochondria in its cells have never had contact with the outside world, nor-until birth-have they ever encountered a single nutrient. But despite this, they still know how to harvest the energy inside foods, and they carry this complex process out without fault.

Where did the mitochondria learn such a skill?

The truth is that no organelle can "learn" a biological function, in the dictionary meaning of the word. If it did not possess the features to carry out any such function during the formation of the cell, there would be no way for it to obtain them later. A precondition for such a





Glycolysis takes place in the cytoplasm of the cell.

Figure 8.3
The first steps of glycolysis start with an input of energy; without energy the reaction cannot start. Enzymes transfer two phosphate groups from ATP to glucose, thereby initiating its change.

This first step leads to the formation of two molecules of PGAL (phosphoglyceraldehyde), which indicates the start of energy production. Enzymes transfer the protons and electrons they obtain from PGAL to NAD+ to produce two molecules of NADH. After receiving protons and electrons, NAD+ becomes activated and then returns these to its surroundings, thereby forming NADH+. Later on, each substrate group gives a phosphate group to ADP, to form two ATPs. The same processes are carried out for four ATPs. For every four ATPs produced, two ATPs are used at the start of glycolysis, resulting in a net two ATPs being produced.

Figure 8.4

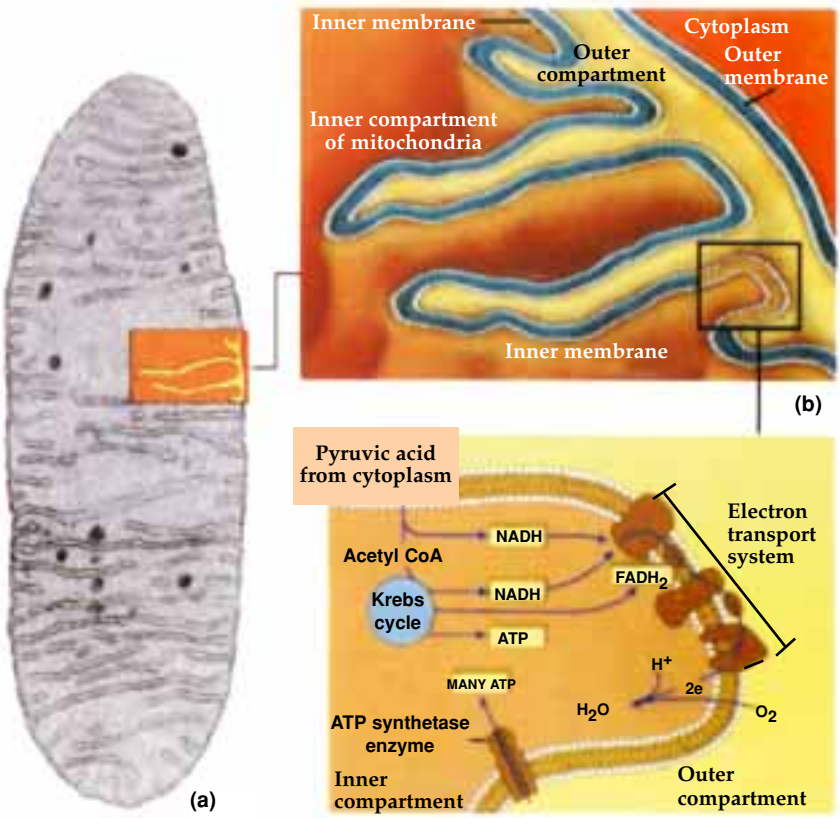


Figure 8.5

Figures 8.4 and Figure 8.5
The functional compartments of the mitochondrion
a) Mitochondrion from the pancreatic cell of a bat
b) The membrane in the inner compartment of the mitochondrion divides up the organelle into two regions.
c) The inner region is where the second stage of aerobic respiration (including the Krebs cycle) takes place. NAD and FAD are converted into NADH and FADH2 by reacting with H+ and electrons. These are sent to the transport system in the inner membrane. The concentration of H+ ions and electric charge changes as a result of the processes that take place in the third stage. As a result of these changes and the effect of the ATP enzyme (ATP synthetase), ATP is produced.

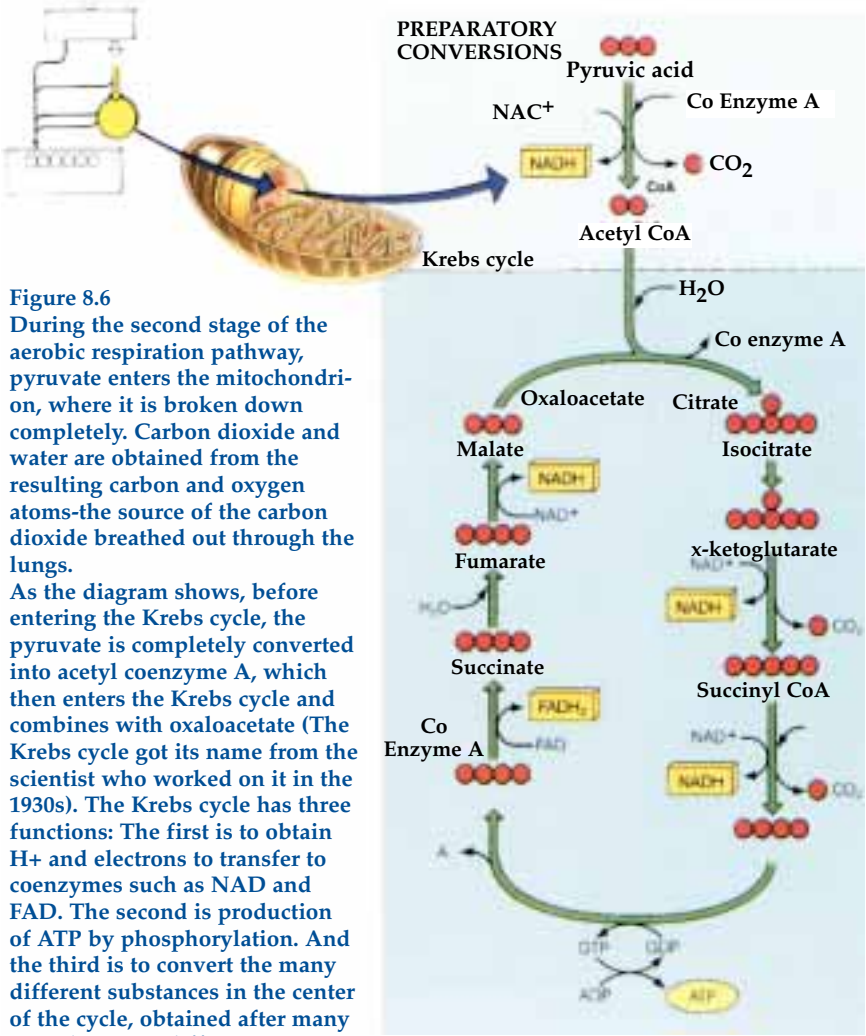


Figure 8.6
During the second stage of the aerobic respiration pathway, pyruvate enters the mitochondrion, where it is broken down completely. Carbon dioxide and water are obtained from the resulting carbon and oxygen atoms-the source of the carbon dioxide breathed out through the lungs.

As the diagram shows, before entering the Krebs cycle, the pyruvate is completely converted into acetyl coenzyme A, which then enters the Krebs cycle and combines with oxaloacetate (The Krebs cycle got its name from the scientist who worked on it in the 1930s). The Krebs cycle has three functions: The first is to obtain H+ and electrons to transfer to coenzymes such as NAD and FAD. The second is production of ATP by phosphorylation. And the third is to convert the many different substances in the center of the cycle, obtained after many steps by many different enzymes, back into oxaloacetate. If this reconversion was not done, and there is only a limited amount of oxaloacetate in the cell, respiration would soon stop.

But because of the extraordinary measures taken by God, oxaloacetate is always regenerated. The incredible reactions that take place in the second step produce only two ATPs. But many of the coenzymes, H+ ions and electrons produced in this step are used in the third and final stage of respiration.

system is its complete existence right from the start. Otherwise, the oxygen that plays such a major role in energy production will, at that point, destroy the cell. The cell must have been equipped with a perfect system of withstanding oxygen, right from when it first formed. It must have been able to take up O_2 gas, which has the ability to destroy it, and use it to produce the important energy it needs to continue its life.

The mitochondrion's purpose is to produce energy using oxygen. And as mentioned above, it can't do this without a series of enzymes working back to back. These enzymes can be passed onto the next generation through a hereditary, via the information stored in the DNA, but no living organism can learn this structural organization on its own. This system is so developed and detailed that even intelligent humans, with all their capabilities, cannot create such a system.

Consequently, evolutionist scientists are forced to accept that the mitochondrion's extraordinary system must have formed in one instant. The following admission of Prof. Ali Demirsoy, a well-known

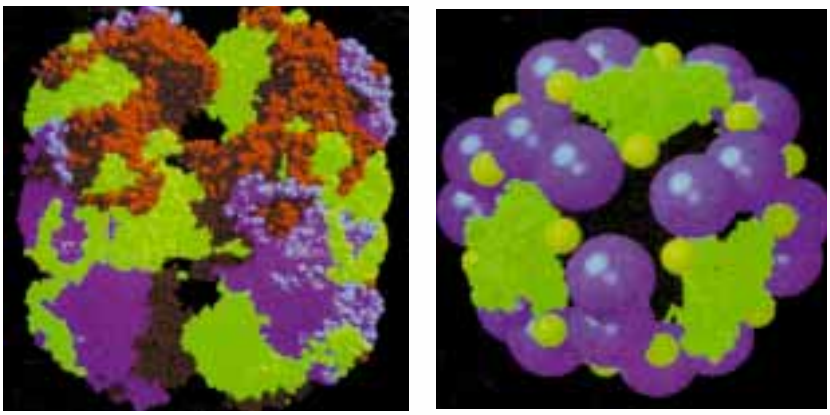


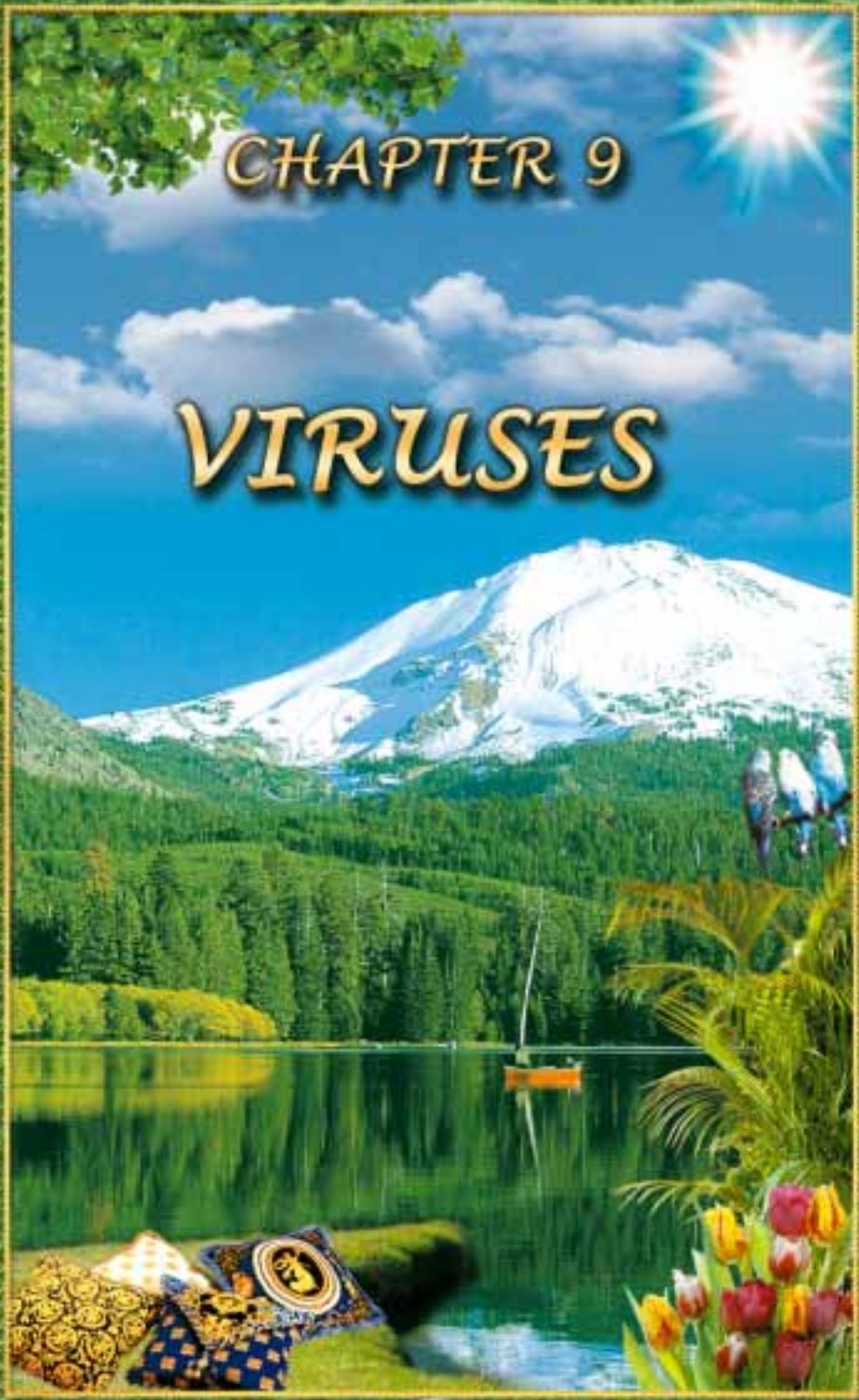
Figure 8.7
Diagrams showing the different forms of the pyruvate dehydrogenase enzyme from a bacterium called *A. vinelandii*. This enzyme acts on pyruvic acid formed at the end of glycolysis.

Turkish evolutionist, is highly enlightening:

> The heart of the problem is how the mitochondria have acquired this feature (that is, of using oxygen to produce energy), because attaining this feature by chance even by one individual, requires extreme probabilities that are incomprehensible... The enzymes providing respiration and functioning as a catalyst in each step in a different form make up the core of the mechanism. A cell has to contain this enzyme sequence completely, otherwise it is meaningless. Here, despite being contrary to biological thought, in order to avoid a more dogmatic explanation or speculation, we have to accept, though reluctantly, that all the respiration enzymes completely existed in the cell before the cell first came in contact with oxygen.[14]

This extract is one example of the damage inflicted on evolutionary logic. Despite all these facts and even though evolutionists refuse to admit it, this situation has only one explanation: Mitochondria were created by a Possessor of intelligence that knows the human body and the vegetable kingdom in the greatest detail. In other words, the power that created the mitochondria is God, **"Who encompasses all things in His knowledge"** (Qur'an, 6:80). Another verse stresses the same truth in the following manner: "**What! Does He not encompass all things?"** (Qur'an, 41:54)




CHAPTER 9
VIRUSES



The cell's greatest enemy is a microscopic organism called a virus. The battle between these two tiny living entities has great significance for humankind. Some viruses merely cause annoying sicknesses like the flu, but others can lead to deadly diseases such as AIDS and typhoid.

The attack of viruses on cells is typically fatal, but also quite amazing because of their highly advanced techniques. The basic viral strategy is to strike at the cell with its own machinery and weapons. The way a virus makes copies of itself is in a sense, a suicide attack, because to perpetuate on the next generation of viruses, it sacrifices both itself and the cell. On previous pages, you saw how cells, in order to continue their existence, produce proteins according to the information contained in their DNA. Viruses sabotage their host cell's protein production facility and turn it into a factory for replicating new copies of itself.

Lifeless, yet Clever Enemies

One of the strangest organic structures found in nature, viruses do not have a living body, but contain only a genetic mechanism. A virus is nothing more than a genetic code (either RNA or DNA) found inside a protein envelope (See Figure 9.1). It has no organelle or functions that would indicate life. But when it makes contact with a living cell, it virtually comes to life, displays features of a living thing, enters the cell, and in fact becomes an offensive and very clever organism.

A virus uses the cleverest techniques of attack against the human body (See Figure 9.2). Before it enters a cell, it first determines with its leglike fibers whether the particular cell is appropriate for it to enter. If its test comes out positive, it releases its DNA into the cell, which,

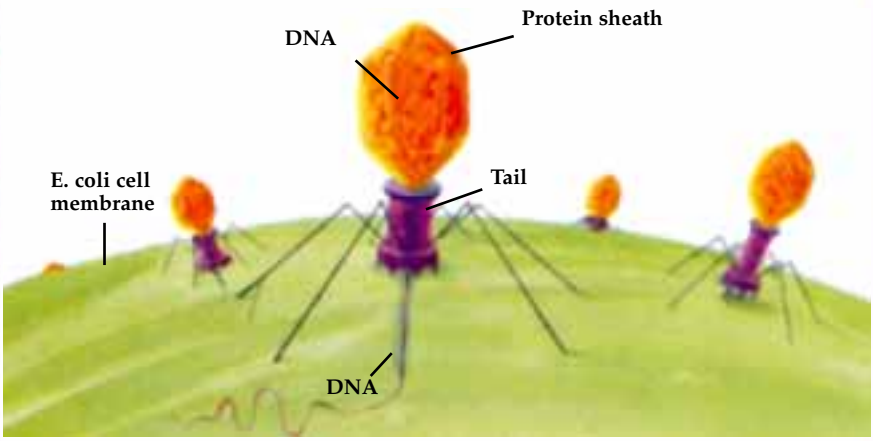


Figure 9.1
Viruses attached to the cell membrane, about to dissolve it and inject themselves into the cell and their own DNA or RNA into the nucleus

in effect, means that the "guts" of the virus itself enters the cell, leaving its protein coat behind.

After this initial event, the mechanisms inside the cell are now deceived by the virus. The cell does not identify this new DNA that has just entered as foreign. It is transported to the nucleus, where the cell's own DNA is located. The viral DNA now reaches the nucleus and is incorporated into the cell's DNA. From this point on, the cell begins to replicate the viral DNA, thinking it is just making the cell's ordinary proteins. Unaware of the difference, the cell continues its production of the viral DNA.

Actually it is very difficult for the cell to realize this deception. Differentiating between viral DNA that's become incorporated into the cell's DNA would be like trying to find a sentence hidden on one page of a 20-volume encyclopedia. Thanks to this cunning strategy, the virus can insert itself into the cell's programming mechanism and actually become a part of the cell itself.

It's possible to completely change the meaning of a sentence simply by flipping a phrase or a few words in it. And this is just the type



Figure 9.2
1) The virus approaches a cell and attaches to its membrane.
2) With a special enzyme it possesses, the virus pierces the cell membrane and injects its nucleic acid (DNA or RNA) into it.

3) The viral DNA is incorporated into the cell's DNA, thereby bringing normal protein production to a halt.
4) The cell starts producing new viruses according to the commands given by its now-altered DNA. The multiplied new viruses then break through the cell membrane and then migrate out toward new cells.

of critical change a virus effects to sabotage the cell's whole production facility and derail it from its original purpose. The viral DNA places itself in a critical location in the cell nucleus, changing the whole meaning of the *production code*.

Normally, the cell reads no protein codes apart from those proteins necessary to itself. But now, with the viral DNA codes locked into its own, the cell reads both and, literally as if bewitched, begins production. How does the virus take control of the cell's protein manufacturing mechanism, and affect its enzymes, making it copy its own viral code and produce its own proteins? This is still a mystery.

This event prepares the way for the cell's inevitable end. Dying, the cell utilizes all its energy in producing the changed code now present in its nucleus. In the end it dies and is torn apart. The replicated virus, which has virtually sucked the life out of this cell, disperses through the bloodstream to other cells and finds new victims for itself. This viral invasion spreads exponentially (See Figure 9.3).

If it weren't for the body's defense mechanism, this invasion would spread rapidly enough to kill a normal person within a few days. But within a very short time, our defense system realizes that a virus has entered the body and immediately begins a counterattack. Consequently, a person who could otherwise die from a simple cold virus is allowed to survive.

These interesting behaviors of viruses are as thought-provoking as they are shocking.

First of all we need to ask how a virus found in nature can possess the knowledge to invade a human body and take over its cells? For a virus to be able to do this, it must know the human cell intimately, and must be able to find a way to incorporate its own DNA into that of a human being's.

But it's wholly illogical to think that this could happen. A virus is made up of only DNA with an envelope surrounding it. It cannot

possess the ability to recognize the human body and change itself accordingly.

Here we are faced with an inescapable truth: A virus has been especially created to enter the human body and insert itself into its DNA.

To use another analogy, imagine that while walking through an empty field, you came across a highly sophisticated door lock and then a little while later, you found a key. If you then put the key in the lock and the door opened, what would you conclude? Would you say, "What a coincidence! This piece of metal opened the lock by chance"? Or would you conclude that the key was crafted to open the lock, but that they had merely been placed in different locations? Being intelligent, of course you would accept the second conclusion.

A virus and the human body have a similar lock-and-key relationship. A virus that has existed in nature for tens of thousands of years with no relationship with a human cell, suddenly enters the body, goes straight to the cell, and *opens the lock*. First of all, it breaks down the cell wall, because it has been designed to penetrate this wall. Then it integrates with the cell's DNA, because it has been created in such a way that it can do so.

In other words, viruses have been created in order to enter the human body and cause diseases. God willed for people to be prone to illness. Since man is liable to get haughty and proud, only with these types of illnesses can he perceive his weakness and utter dependence on God.

However, while God creates the disease, He also creates its cure. While He has created the virus, He has also created a defense mechanism that puts up a magnificent fight against this virus, which is how mankind can resist so many of the different viruses we encounter every day.

Moreover, God sometimes uses viruses as a *cause of death*. God determines a period of life to whomever He wills, and this determined

period comes to an end when He wills. So a virus is just one of the *reasons* for death that God employs. Throughout history, millions of people have lost their valuables, their property, their partners, their children-in short, their very lives-due to a virus they could never see. Even though modern medicine is finding cures for many viruses, it is quite significant that new, highly drug-resistant viruses are emerging. Relatively new viruses like HIV and Ebola are continuing to be the causes of death for bodies whose end God has willed, as decreed in the verse "**Wherever you are, death will catch up with you"** (Qur'an, 4:78).



Figure 9.3
A red blood cell attacked by a virus. After the viruses have multiplied, destroyed and exited the cell, they search for new victims.

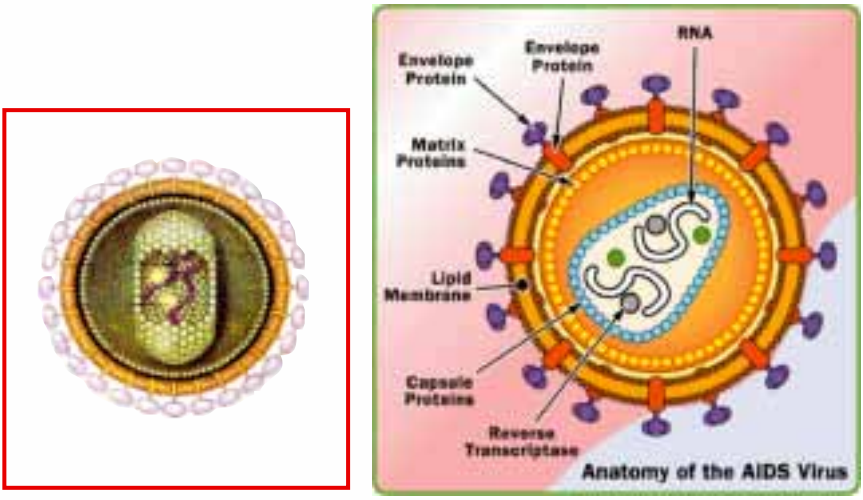


Figure 9.4
The HIV virus that causes AIDS. Inevitably, millions of people continue to die from the AIDS since no cure can be found.

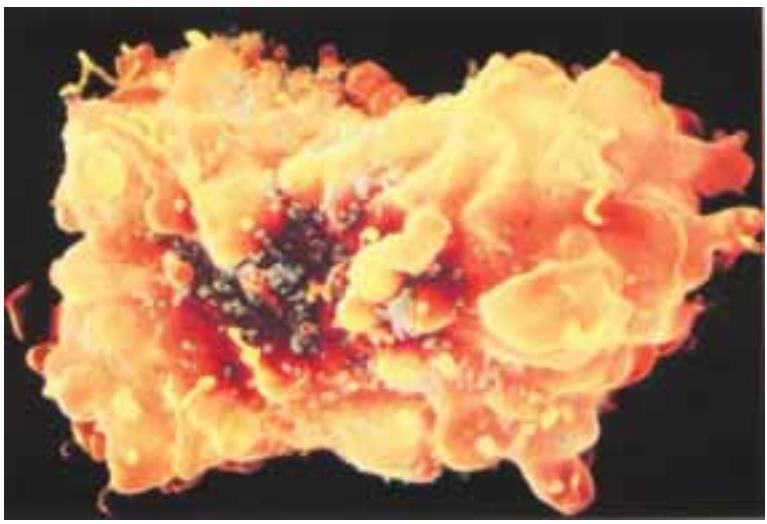
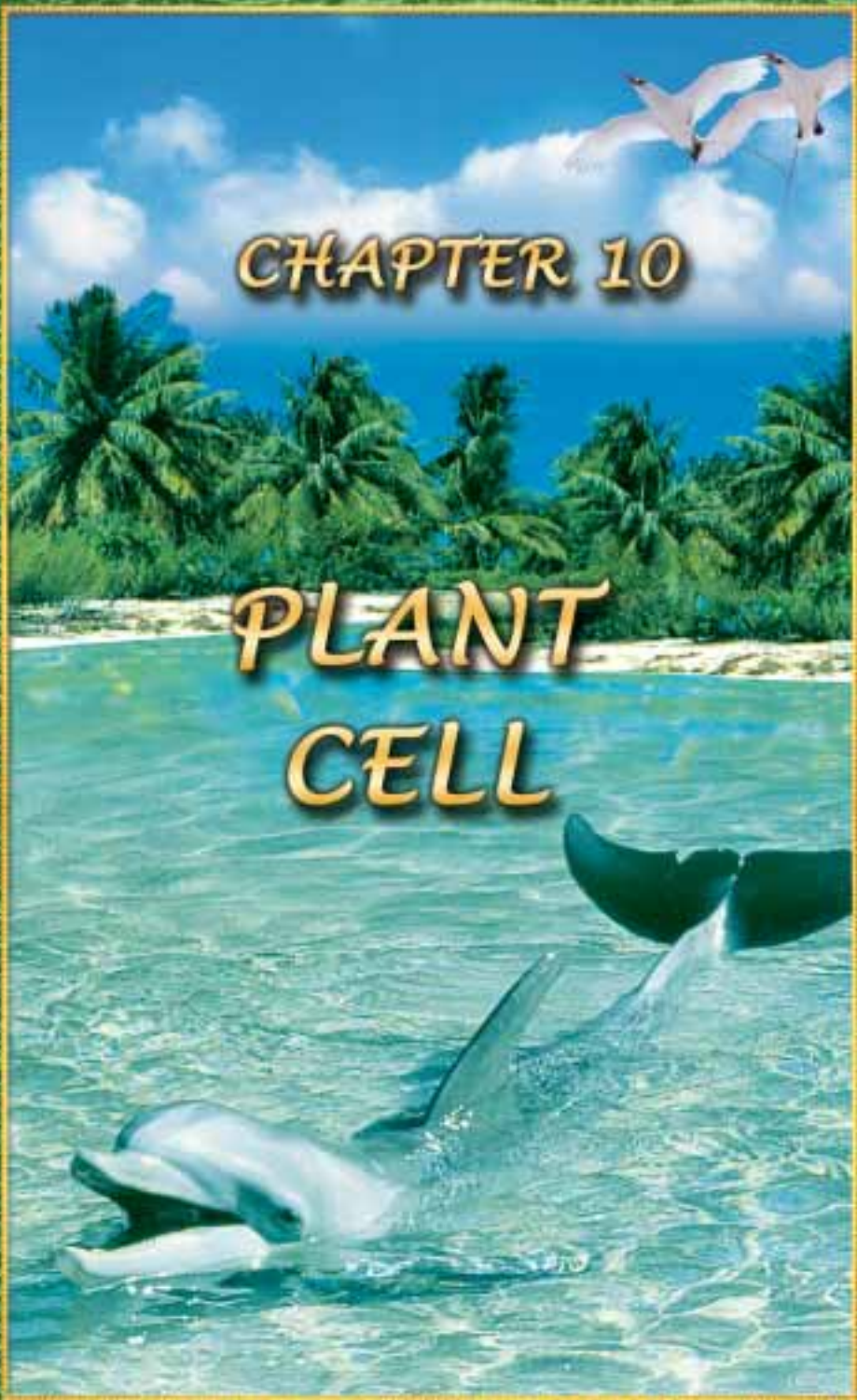
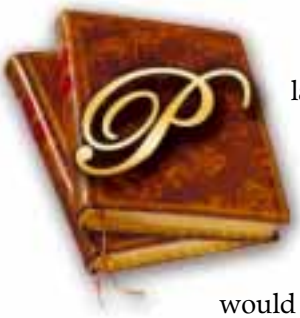


Figure 9.5
A T-lymphocyte cell that's been attacked by HIV virus


CHAPTER 10
PLANT
CELL



lants play a huge role in keeping our Earth livable. Plants clean the air that we breathe and moderate our planet's temperature. If plants did not release oxygen into the air we breathe, neither humans nor animals would live for very long. The amount of oxygen in the atmosphere would soon be depleted, and all living things would die of suffocation.

A large portion of our nutrients is also derived from plants, which prepare these nutrients from three basic substances: earth, sunlight, and water. In spite of this, each plant species has a particular shape, color, taste and smell unique to it, which hasn't changed for thousands of years.

As with all other functions, plants' ability to produce nutrients for themselves, as well as for animals and humans, is a result of the special properties found in their cells. Plant cells have a different structure from humans' and animals' cells, and have been created in such a way as to be the source of nutrients for all living organisms, besides cleaning and refreshing the atmosphere.

Even though plant cells seem stationary, there is great activity within. At every second they are absorbing water and other minerals and elements they need from the earth. To these they add the carbon dioxide absorbed from the air and most importantly, energy from the sun to produce nutrients and clean oxygen for animal and human life. This feverish production is carried on within the trillions of tiny cells in the trees that we see every day (See Figure 10.1).

The most important property distinguishing plant cells from animal cells is their ability to utilize solar energy. This they do through a process called photosynthesis, converting the energy from the sun into nutrients that animals and humans can use (See Figure 10.2).

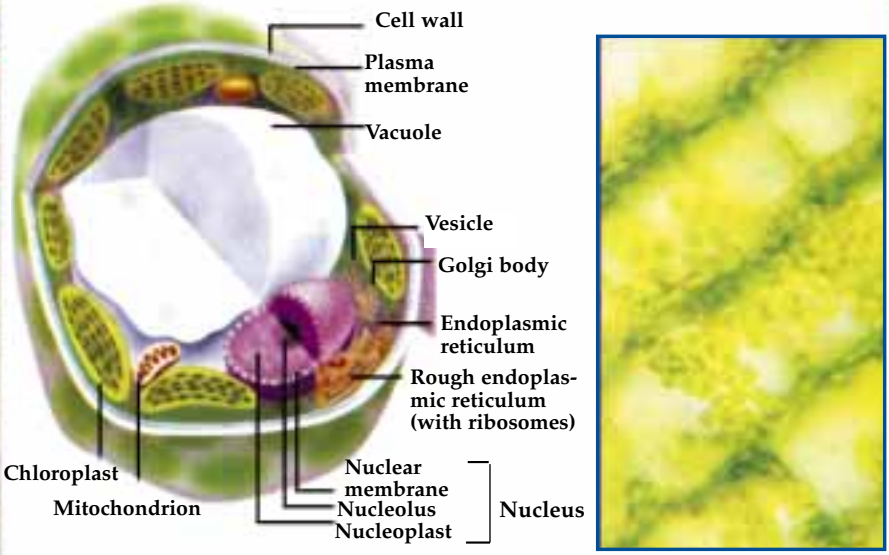


Figure 10.1
a) General diagram of a plant cell

b) Plant cells and the chloroplasts within them

Energy from the Sun to Nutrients

The Sun is the primary source of energy for life on Earth, though humans and animals cannot use this energy directly. The energy used by our cells is in reality solar energy transferred to us through plants. When we drink tea with sugar, actually we are drinking in energy from the Sun. The bread we eat has a large portion of solar energy. The strength in our muscles is really nothing more than a different form of solar energy. The heat that arises from a burning piece of wood is just transformed solar energy. The energy you use in reading this book again derives from energy from the Sun.

The energy source of plants and animals is the same: solar energy, transformed, as mentioned earlier, by *photosynthesis*.

Plant cells convert energy they obtain from sunlight into chemical energy and store it in very special ways in nutrients. Actually, not

the whole cell does this, but only the organelles called *chloroplasts* that give the plant its green color (See Figure 10.3 a,b). These tiny green entities, which we can see only with a microscope, sacrifice their lives to store nutrients and produce oxygen for animal life. These organelles are the only laboratories in the world that can store solar energy in the form of organic matter-the property that makes plants a crucial source of nutrients for animals and humans alike.

Every year, the amount of matter produced by chloroplasts comes to about 200 billions tons. This production is actually an extraordinarily complex chemical process that takes place at dizzying speeds. Thousands of chlorophyll molecules found in chloroplasts respond within a thousandth of a second. Because of this speed, many of the reactions that take place in the chlorophyll have still not been observed. The general steps of photosynthesis are understood, but the details are still not completely known because this complex system, which cannot be reproduced chemically, occurs at speeds beyond the comprehension.

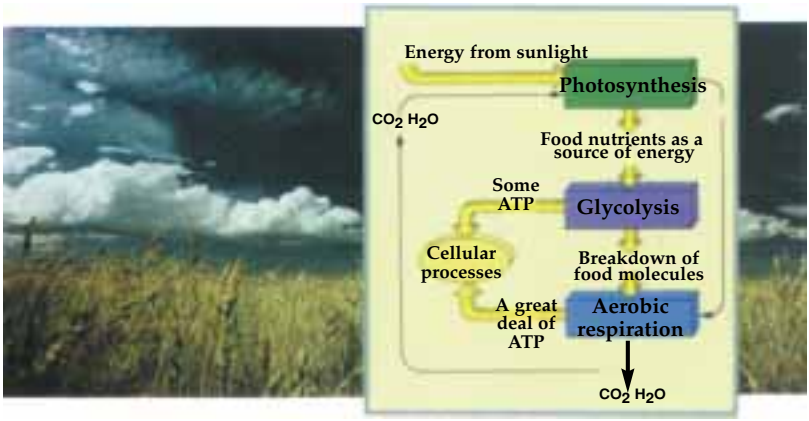
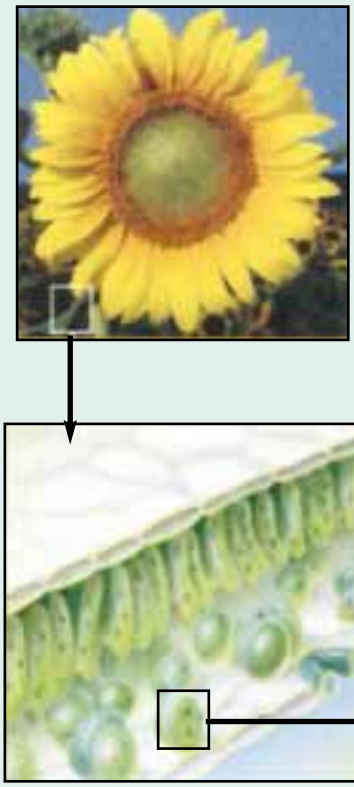


Figure 10.2
God has created a perfect system for man on Earth. The Sun is the source of energy, which plants present to humans via food. Plants also carry out the cleansing of the air we breathe. The energy plants store through photosynthesis is converted, through glycolysis and aerobic respiration, into packets of energy called ATP that cells can use.

Photosynthesis takes place in two phases called the *light phase* (light-dependent reactions) and the *dark phase* (light-independent reactions). Light-dependent reactions take place in the so-called thylakoids, small disc-like regions found in the chloroplasts (See Figure 10.3c). Here, the pigment molecules lose an electron as they absorb energy from the sun. As a result of the movement of the electrons, an energy packet is produced as either ATP or NAPDH. In the light-independent reactions, however, carbon dioxide-with the help of the ATP and NAPDH pro-





a b

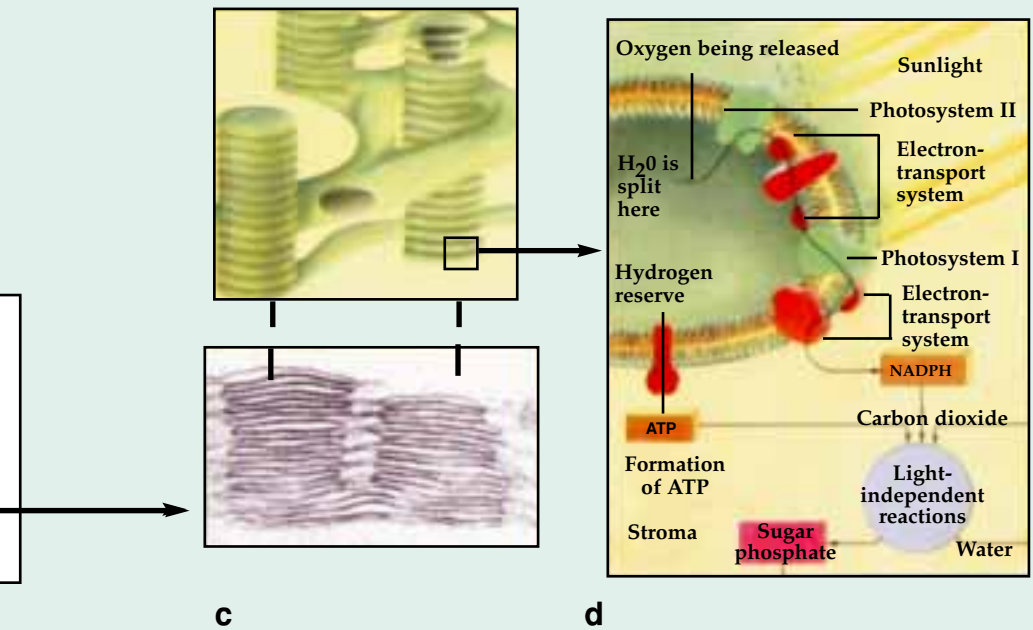
a) Cross section of a sunflower leaf, showing the chloroplasts within the cells
b) Cross section of a chloroplast
c) Two grana. This region, which is made of thylakoid disks, is where light-dependent reactions take place.
d) Where photosynthetic reactions occur. Electrons activated by solar energy are transferred to the electron-transport system within the membrane. The electron is used to split water molecules into hydrogen and oxygen. Oxygen is released, while hydrogen ions are kept inside. The balance of oxygen in the world is maintained as a result of this complex process that most of us are never even aware of. Electrons that have gone through the electron-transport system facilitate the production of ATP and NADPH. The next stage, the light-inde-

Figure 10.3

duced at the end of the light-dependent reactions-is converted into energy-giving nutrients like sugar and starch (See Figure 10.3d).

This explanation of what actually goes on has been simplified a thousandfold, but is still too complex to understand. In reality, the explanation of reactions that take place during photosynthesis is too long to fit on these pages. No laboratory on Earth is capable of duplicating this energy transformation, carried out in organelles that are thousandths of a millimeter in size. A system placed within the mem-

pendent reactions, takes place in the stroma (See Figure 10.3b). Then, via a complex series of processes still not completely understood, carbon dioxide, NADPH, and ATP are converted into the carbohydrates that facilitate the continuation of life. Within a tiny chloroplast about a thousandth of a millimeter in size, and an even tinier membrane within that chloroplast a hundred millionth of a meter in size, are produced food and oxygen for all human and animal life.



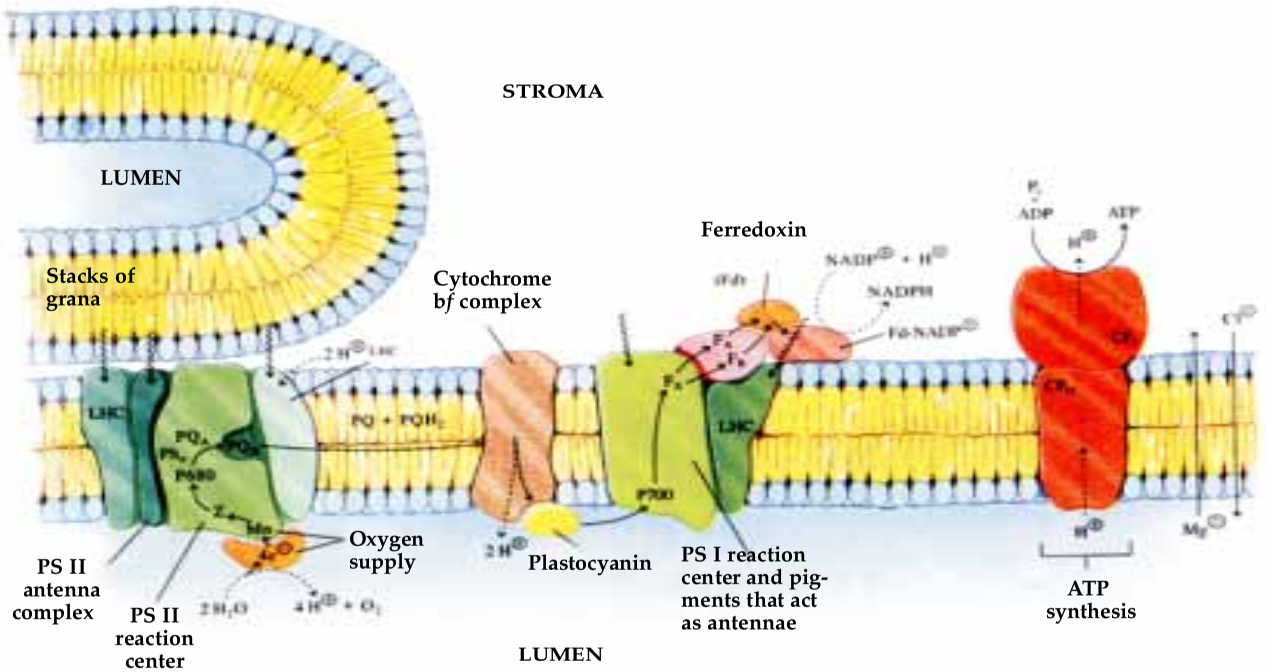


Figure 10.4
The above system can be found in the thylakoid membrane of dozens of chloroplasts found in just one of the billions of cells that compose one leaf. Capture of photons emitted by the Sun is shown with curly arrows, while the straight arrows show electron-transport and the dotted arrows, proton transport. It's patently obvious that such a system did not come about on its own.

brane of this organelle, which is a hundred millionth of a millimeter thick, controls the electrons released as a result of energy from the Sun. These electrons are then used in the production of nutrients for animal and human consumption.

This perfect system brings the theory of evolution to its knees once again. Because before photosynthesis can take place, all the enzymes and systems need to be found together in the cell at the same time. If even one of these steps is missing, it will render the entire system ineffective. Consequently evolutionist scientists are powerless to explain photosynthesis, just as they are with all of the other chemical mechanisms within the cell. One of these "scientists" Prof. Ali Demirsoy summarizes the hopeless situation into which they have fallen:

> Photosynthesis is a rather complicated event, and it seems impossible for it to emerge in an organelle inside a cell because it is impossible for all the stages to have come about at once, and it is meaningless for them to have emerged separately.[15]

On the other hand, another evolutionist scientist, Hoimar von Ditfurth, says that photosynthesis is not a process to be learned later on. He states that all the materials and knowledge required for photosynthesis must have been present in the plant cell from the beginning:

> No cell possesses the capacity to "learn" a process in the true sense of the word. It is impossible for any cell to come by the ability to carry out such functions as respiration or photosynthesis, neither when it first comes into being, nor later in life.[16]

Converting solar energy into electronic or chemical energy is a process that modern technology has only recently been able to carry out. For this, highly technological devices are needed. But a tiny plant cell invisible to the naked eye has been carrying out this conversion consistently, for millions of years. For it to have acquired this ability by "coincidence" is definitely impossible, as the evolutionists admit.

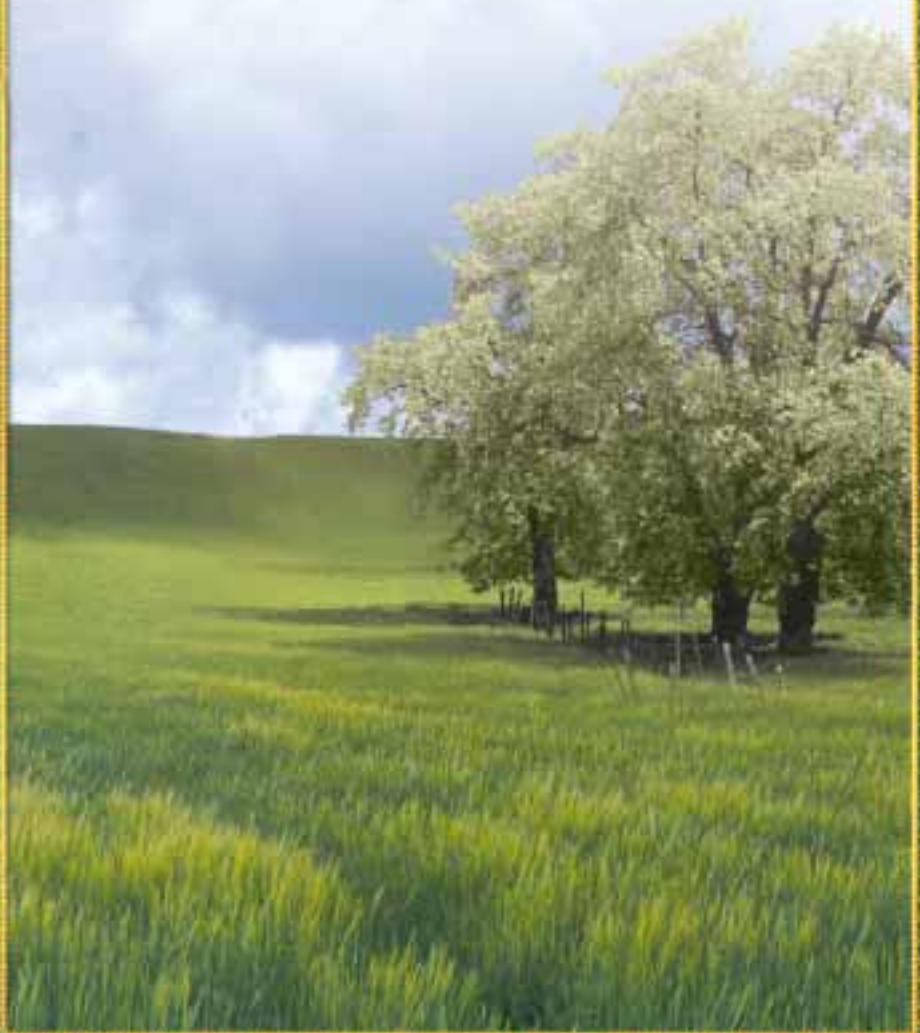
Now come the questions thick and fast: Who taught a membrane a hundred millionth of a meter thick to capture an electron and transfer it to other chemical reactions to store energy? How did all of these steps come to be carried out within the cell at the same time? How have green leaves of plants come to be the energy storeroom for all living creatures on Earth?

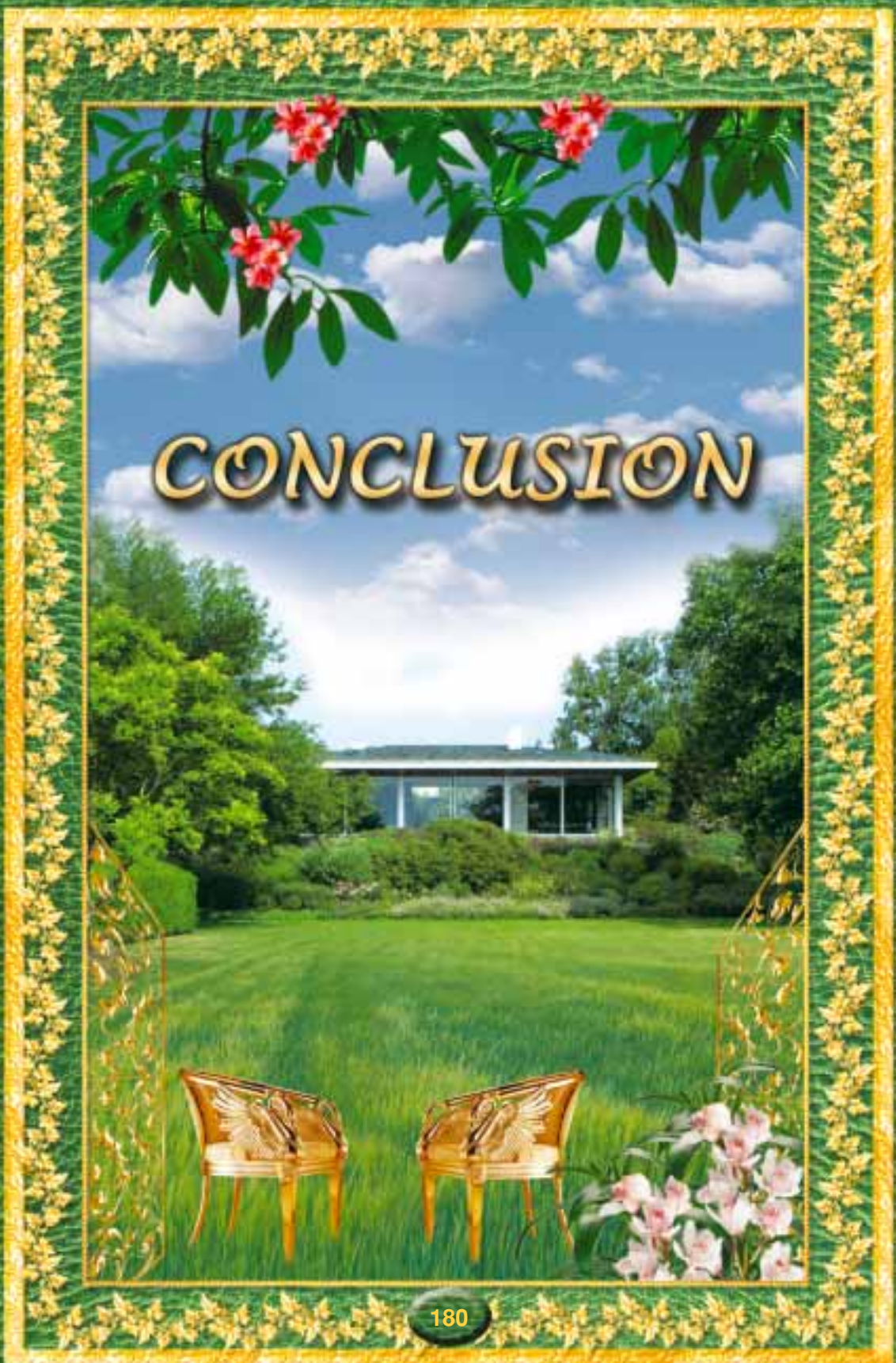
The answer, clearly, is that God has given plants these features. All they are doing is carrying out the duties assigned to them, bowing in submission to the will of God.



By His will, all the plants on the face of the Earth produce food and oxygen using water from the earth, minerals and carbon dioxide in the atmosphere. God has made these living organisms the means for His provision. On many occasions, the Qur'an mentions that human beings receive their sustenance from the land and the sky:

> **Humanity! Remember God's blessing to you. Is there any creator other than God providing for you from heaven and earth?... (Qur'an, 35:3)**




CONCLUSION



In the previous pages we looked at many amazing, even miraculous events that occur inside living cells. Every one revealed that just even one single cell or one protein possesses a highly complex, planned structure. It's not possible for either of them to have formed as a result of coincidence, as evolutionists claim. Coincidence can only result in chaos, disruption, disorder, error and freaks of nature. The magnificent harmony, order, balance, success and aesthetic nature of the cell and other living things show that they are all the product of a knowledgeable and faultless creation.

In short, what we've examined brings the theory of evolution to its knees, unarguably, and proves that the "origin of species" came about through creation.

Yet there is more to this truth than we explained before.

If the cell or any other stage of life were immobile or constant, then we would not be able to advance any further than the point made above. However, when we examine all of the different components of cells-DNA, ribosomes, mitochondria, viruses, enzymes and hormones-they are all highly active and carry out amazing processes very successfully. They seem to possess what we would describe as *intention* and *intelligence*, that is, the abilities to think, analyze and make decisions. What's more, this intelligence is much more fascinating than that attributed to human beings. Just the organelle of a cell during protein synthesis displays a level of intelligence that human beings will not easily reach.

But it's not logical to say that this intelligence is actually a property of the cell itself, because the components of the cell that display such apparent knowledge are nothing more than a group of molecules. Given the acts they carry out, they should all be able to think in

a sophisticated manner, but they do not actually possess a brain. In fact, they don't have eyes, ears, feelings of touch, or a nervous system. They are really nothing more than just a series of chains of amino acids arranged in a particular order.

But these chemical compounds-which are deprived of seeing, hearing, feeling, thinking and making decisions-display magnificent feats of intelligence.

Thus we need to ask: What is the source of this intelligence?

The Unseen Source of Intelligence

Earlier, we used the example of a remote-control car. The car's apparently conscious maneuvers were really a product of an intelligent person in control of the car, but some narrow-minded people had difficulty understanding this. Because they couldn't see the car's controller, they didn't accept his existence, and so developed various theories to explain the car's "intelligent" movements.

If they were to report about the car, probably they'd write something like this: "This car successfully controls its speed and direction, and carries out functions such as turning corners, avoiding potholes, and following the road in a most ideal manner."

But when considered carefully, this explanation is superficial and very insufficient. The following is more accurate: "*Whoever is controlling the car* is able to successfully control its speed and direction. Since he does not leave the controls for even one instant, he is able to carry out functions such as turning corners, avoiding potholes, and following the road."

Clearly, both explanations describe the exact same events. However, the first one uses a very simplistic, superficial, and very shallow outlook. The second is written by an observer who perceives the inner reality of the events before him.

The intelligence displayed by the cell or any other component of nature did not come about by itself. All creatures carry out the duties

given them by God, and the intelligence they display in these acts is the intelligence of God.

A verse about honeybees shows an important point about this:

Your Lord revealed to the bees: "Build dwellings in the mountains and the trees, and also in the structures which men erect. Then eat from every kind of fruit and travel the paths of your Lord, which have been made easy for you to follow." From inside them comes a drink of varying colors, containing healing for humanity. There is certainly a sign in that for people who reflect. (Qur'an, 16:68-69)

Like the organelles of cells, honeybees also display intelligence in the acts they carry out, such as informing each other of the location of the flowers they have found to make honey, and the way they build their hives. But the source of this intelligence, as explained in the above verse, is that God has *inspired* the bees. That is, He has imparted them some of His own knowledge, thereby giving them the ability to carry out their complex acts. The resulting intelligence does not belong to the bees, but to God. He is *ar-Razzak*, the Provider, and through the inspiration He gives to the bees, presents us with the great bounty such as honey.

Obviously this principle does not apply to bees alone, because nature is full of mindless creatures that constantly display intelligence. All of them, from the tiniest insect to the largest organism, act by the inspiration given to them by God, Who has inspired them all with their duties and the knowledge to carry them out. They, in return, have submitted to God and carry out these duties:

Everyone in the heavens and earth belongs to Him. All are submissive to Him. (Qur'an, 30:26)

Another verse tells man:

Don't you see that everyone in the heavens and everyone on the Earth prostrates to God, and the Sun and Moon and stars and the mountains, trees and beasts and many of humanity?... (Qur'an, 22:18)

An Eye that Sees

To understand this topic more clearly, we can use an example from a great Muslim scholar.

Imagine a person watching the sea on a sunny day, from a balcony covered by an awning. Because of the awning, he cannot see the sun, only its reflections on the sea, in the form of millions of tiny sparkles. The sparkles possess a beauty that is, in a word, dazzling.

The person wondering about the source of the beauty in these sparkles has two choices. Either he must assume that each sparkle formed by itself on the water independently of the rest, or accept that each is a reflection of the Sun on the water. Water does not possess the ability to make light. Light only comes from the Sun, and the rays falling over the water form millions of reflections.

Everything in the universe is similar to this example.

The universe, with all of its tiniest detail, was created by God and shaped by His attributes. Everything comes from Him. All of the beauty that we see is just a reflection of His beauty. All of the intelligence that exists is only a manifestation of His intelligence.

God gives life to everything in the universe for a determined period, with His attribute of *al-Hayy* (the Living). These display a small reflection of God's intelligence, beauty, and knowledge, and then die-again at the time determined by God.

Human beings are like this too. We come from the earth, and live a particular length of time as God has determined, then die and return to the earth. During the short time that we live, we can also *reflect* some of those attributes of God, as He wills. A human being, who begins as a single fertilized cell in his mother's womb, grows up to

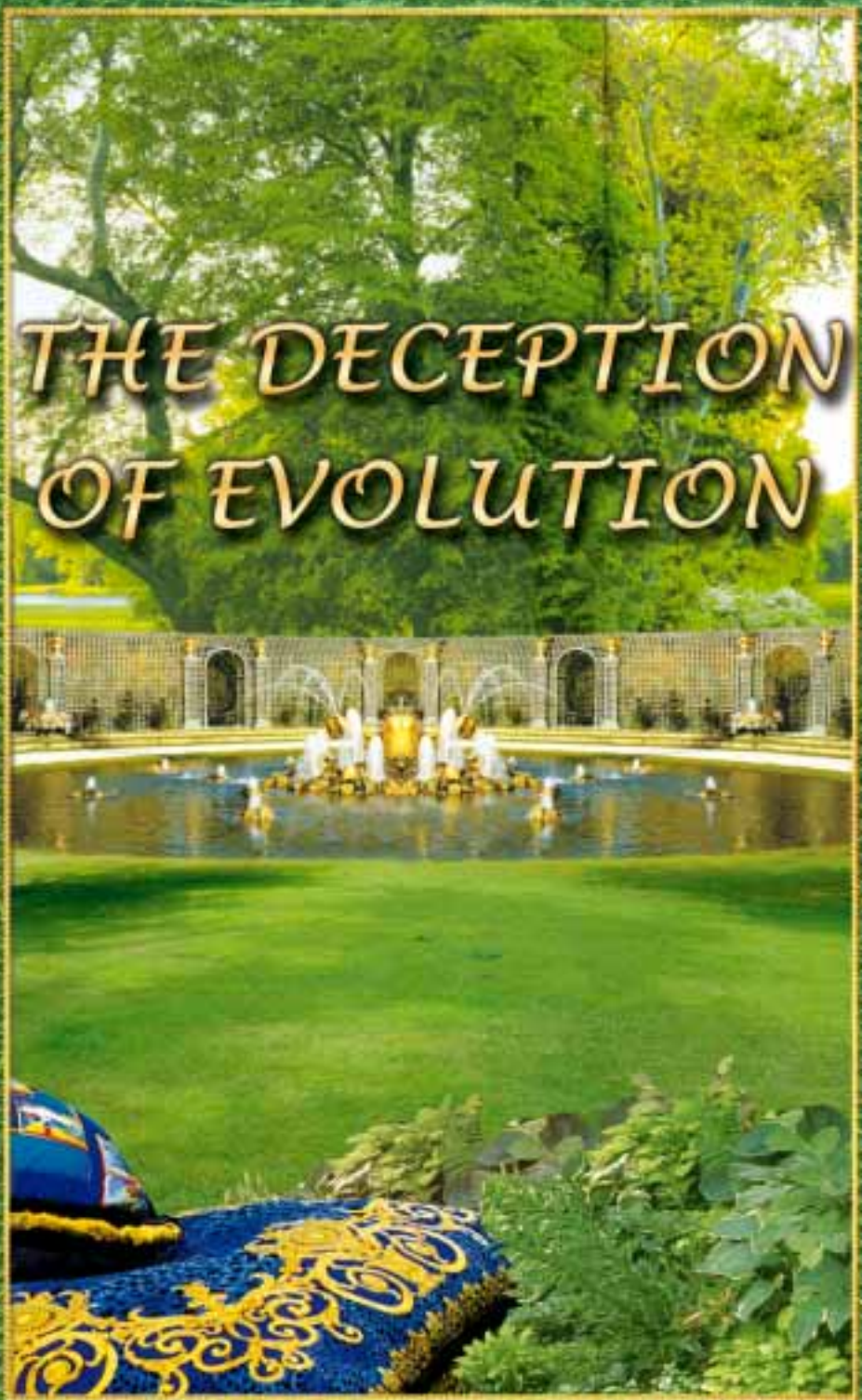
possess a face reflecting the great artistry of God, then grows old and is decayed under the earth.

The properties about the cell recounted in this book, and of all the living and inanimate objects in the universe are all manifestations of God's intelligence. A cell, which is in reality nothing more than a speck of protoplasm, comes to possess intelligence, knowledge and consciousness through the will of God. And then, again through the will of God, dies.

Any mind that can perceive will see this. There is nothing in the universe other than manifestations of God. Everything is from Him. Everything indicates Him. Everything describes Him and submits to Him:

> **God, there is no deity but Him, the Living, the Self-Sustaining. He is not subject to drowsiness or sleep. Everything in the heavens and the Earth belongs to Him. Who can intercede with Him except by His permission? He knows what is before them and what is behind them but they cannot grasp any of His knowledge save what He wills. His Footstool encompasses the heavens and the Earth and their preservation does not tire Him. He is the Most High, the Magnificent. (Qur'an, 2:255)**




THE DECEPTION
OF EVOLUTION



arwinism, in other words the theory of evolution, was put forward with the aim of denying the fact of creation, but is in truth nothing but failed, unscientific nonsense. This theory, which claims that life emerged by chance from inanimate matter, was invalidated by the scientific evidence of clear "design" in the universe and in living things. In this way, science confirmed the fact that God created the universe and the living things in it. The propaganda carried out today in order to keep the theory of evolution alive is based solely on the distortion of the scientific facts, biased interpretation, and lies and falsehoods disguised as science.

Yet this propaganda cannot conceal the truth. The fact that the theory of evolution is the greatest deception in the history of science has been expressed more and more in the scientific world over the last 20-30 years. Research carried out after the 1980s in particular has revealed that the claims of Darwinism are totally unfounded, something that has been stated by a large number of scientists. In the United States in particular, many scientists from such different fields as biology, biochemistry and paleontology recognize the invalidity of Darwinism and employ the fact of creation to account for the origin of life.

We have examined the collapse of the theory of evolution and the proofs of creation in great scientific detail in many of our works, and are still continuing to do so. Given the enormous importance of this subject, it will be of great benefit to summarize it here.

The Scientific Collapse of Darwinism

Although this doctrine goes back as far as ancient Greece, the theory of evolution was advanced extensively in the nineteenth century. The most important development that made it the top topic of



Charles Darwin

the world of science was Charles Darwin's *The Origin of Species*, published in 1859. In this book, he denied that God created different living species on Earth separately, for he claimed that all living beings had a common ancestor and had diversified over time through small changes. Darwin's theory was not based on any concrete scientific finding; as he also accepted, it was just an "assumption." Moreover, as Darwin confessed in the long chapter of his book titled "Difficulties on Theory," the theory failed in the face of many critical questions.

Darwin invested all of his hopes in new scientific discoveries, which he expected to solve these difficulties. However, contrary to his expectations, scientific findings expanded the dimensions of these difficulties. The defeat of Darwinism in the face of science can be reviewed under three basic topics:

1) The theory cannot explain how life originated on Earth.

2) No scientific finding shows that the "evolutionary mechanisms" proposed by the theory have any evolutionary power at all.

3) The fossil record proves the exact opposite of what the theory suggests.

In this section, we will examine these three basic points in general outlines:

The First Insurmountable Step: The Origin of Life

The theory of evolution posits that all living species evolved from a single living cell that emerged on the primitive Earth 3.8 billion years

ago. How a single cell could generate millions of complex living species and, if such an evolution really occurred, why traces of it cannot be observed in the fossil record are some of the questions that the theory cannot answer. However, first and foremost, we need to ask: How did this "first cell" originate?

Since the theory of evolution denies creation and any kind of supernatural intervention, it maintains that the "first cell" originated coincidentally within the laws of nature, without any design, plan or arrangement. According to the theory, inanimate matter must have produced a living cell as a result of coincidences. Such a claim, however, is inconsistent with the most unassailable rules of biology.

"Life Comes From Life"



Louis Pasteur destroyed the belief that life could be created from inanimate substances.

In his book, Darwin never referred to the origin of life. The primitive understanding of science in his time rested on the assumption that living beings had a very simple structure. Since medieval times, spontaneous generation, which asserts that non-living materials came together to form living organisms, had been widely accepted. It was commonly believed that insects came into being from food leftovers, and mice from wheat. Interesting experiments were conducted to prove this theory. Some wheat was placed on a dirty piece of cloth, and it was believed that mice would originate from it after a while.

Similarly, maggots developing in rotting meat was assumed to be evidence of spontaneous generation. However, it was later under-

stood that worms did not appear on meat spontaneously, but were carried there by flies in the form of larvae, invisible to the naked eye.

Even when Darwin wrote *The Origin of Species*, the belief that bacteria could come into existence from non-living matter was widely accepted in the world of science.

However, five years after the publication of Darwin's book, Louis Pasteur announced his results after long studies and experiments, that disproved spontaneous generation, a cornerstone of Darwin's theory. In his triumphal lecture at the Sorbonne in 1864, Pasteur said: "Never will the doctrine of spontaneous generation recover from the mortal blow struck by this simple experiment."[17]

For a long time, advocates of the theory of evolution resisted these findings. However, as the development of science unraveled the complex structure of the cell of a living being, the idea that life could come into being coincidentally faced an even greater impasse.

Inconclusive Efforts of the Twentieth Century

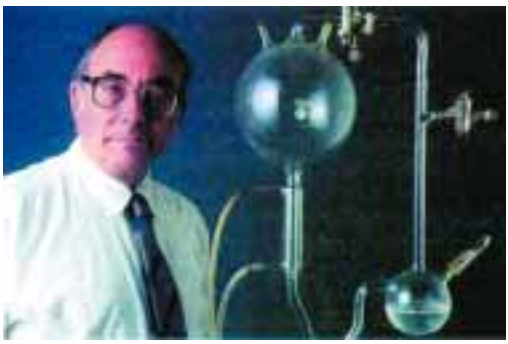


Alexander Oparin's attempts to offer an evolutionist explanation for the origin of life ended in a great fiasco.

The first evolutionist who took up the subject of the origin of life in the twentieth century was the renowned Russian biologist Alexander Oparin. With various theses he advanced in the 1930s, he tried to prove that a living cell could originate by coincidence. These studies, however, were doomed to failure, and Oparin had to make the following confession:

Unfortunately, however, the problem of the origin of the cell is per-

haps the most obscure point in the whole study of the evolution of organisms.[18]



American chemist Stanley Miller

Evolutionist followers of Oparin tried to carry out experiments to solve this problem. The best known experiment was carried out by the American chemist Stanley Miller in 1953. Combining the gases he alleged to have existed in the primordial Earth's atmosphere in an experiment set-up, and adding energy to the mixture, Miller synthesized several organic molecules (amino acids) present in the structure of proteins.

Barely a few years had passed before it was revealed that this experiment, which was then presented as an important step in the name of evolution, was invalid, for the atmosphere used in the experiment was very different from the real Earth conditions.[19]

After a long silence, Miller confessed that the atmosphere medium he used was unrealistic.[20]

All the evolutionists' efforts throughout the twentieth century to explain the origin of life ended in failure. The geochemist Jeffrey Bada, from the San Diego Scripps Institute accepts this fact in an article published in *Earth* magazine in 1998:

> Today as we leave the twentieth century, we still face the biggest unsolved problem that we had when we entered the twentieth century: How did life originate on Earth?[21]

The Complex Structure of Life

The primary reason why the theory of evolution ended up in



One of the evolutionists' gravest deceptions is the way they imagine that life could have emerged spontaneously on what they refer to as the primitive Earth, represented in the picture above. They tried to prove these claims with such studies as the Miller experiment. Yet they again suffered defeat in the face of the scientific facts: The results obtained in the 1970s proved that the atmosphere on what they describe as the primitive Earth was totally unsuited to life.

such a great impasse regarding the origin of life is that even those living organisms deemed to be the simplest have incredibly complex structures. The cell of a living thing is more complex than all of our man-made technological products. Today, even in the most developed laboratories of the world, a living cell cannot be produced by bringing organic chemicals together.

The conditions required for the formation of a cell are too great in quantity to be explained away by coincidences. The probability of proteins, the building blocks of a cell, being synthesized coincidentally, is 1 in 10^{950} for an average protein made up of 500 amino acids. In mathematics, a probability smaller than 1 over 10^{50} is considered to be impossible in practical terms.

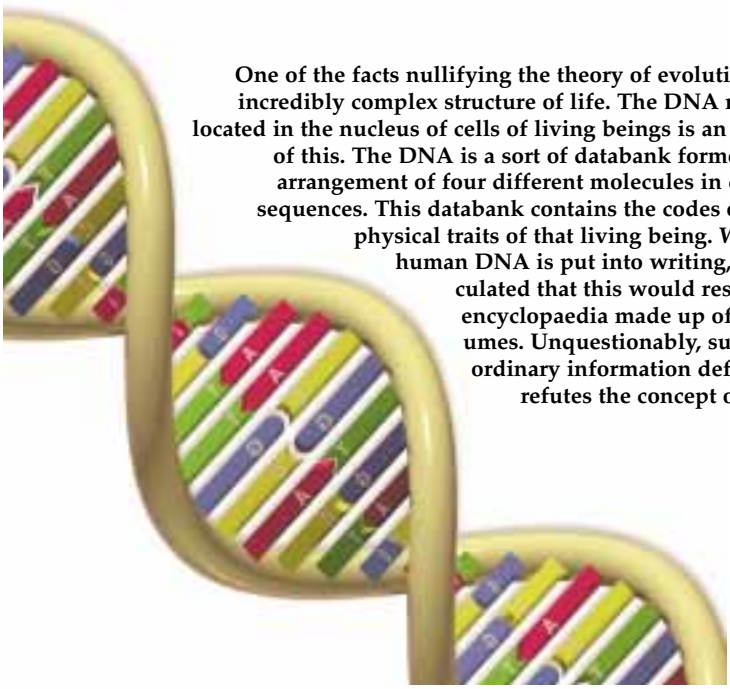
The DNA molecule, which is located in the nucleus of a cell and which stores genetic information, is an incredible databank. If the information coded in DNA were written down, it would make a giant

library consisting of an estimated 900 volumes of encyclopedias consisting of 500 pages each.

A very interesting dilemma emerges at this point: DNA can replicate itself only with the help of some specialized proteins (enzymes). However, the synthesis of these enzymes can be realized only by the information coded in DNA. As they both depend on each other, they have to exist at the same time for replication. This brings the scenario that life originated by itself to a deadlock. Prof. Leslie Orgel, an evolutionist of repute from the University of San Diego, California, confesses this fact in the September 1994 issue of the *Scientific American* magazine:

> It is extremely improbable that proteins and nucleic acids, both of which are structurally complex, arose spontaneously in the same place at the same time. Yet it also seems impossible to have one without the other. And so, at first glance, one might have to conclude that life could never, in fact, have originated by chemical means.[22]

No doubt, if it is impossible for life to have originated from nat-



One of the facts nullifying the theory of evolution is the incredibly complex structure of life. The DNA molecule located in the nucleus of cells of living beings is an example of this. The DNA is a sort of databank formed of the arrangement of four different molecules in different sequences. This databank contains the codes of all the physical traits of that living being. When the human DNA is put into writing, it is calculated that this would result in an encyclopaedia made up of 900 volumes. Unquestionably, such extraordinary information definitively refutes the concept of coincidence.

ural causes, then it has to be accepted that life was "created" in a supernatural way. This fact explicitly invalidates the theory of evolution, whose main purpose is to deny creation.

Imaginary Mechanism of Evolution

The second important point that negates Darwin's theory is that both concepts put forward by the theory as "evolutionary mechanisms" were understood to have, in reality, no evolutionary power.

Darwin based his evolution allegation entirely on the mechanism of "natural selection." The importance he placed on this mechanism was evident in the name of his book: *The Origin of Species, By Means of Natural Selection…*

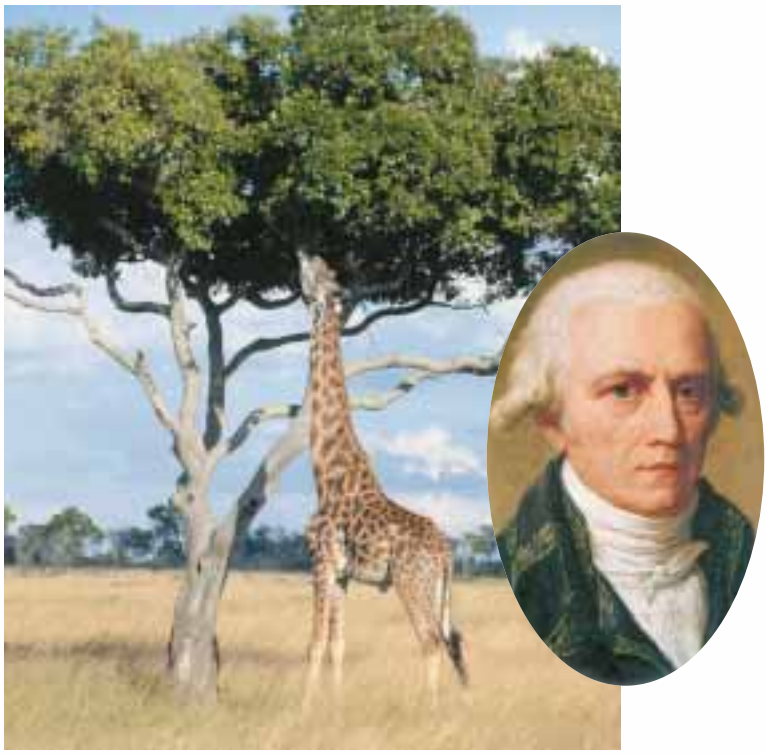
Natural selection holds that those living things that are stronger and more suited to the natural conditions of their habitats will survive in the struggle for life. For example, in a deer herd under the threat of attack by wild animals, those that can run faster will survive. Therefore, the deer herd will be comprised of faster and stronger individuals. However, unquestionably, this mechanism will not cause deer to evolve and transform themselves into another living species, for instance, horses.

Therefore, the mechanism of natural selection has no evolutionary power. Darwin was also aware of this fact and had to state this in his book *The Origin of Species*:

> Natural selection can do nothing until favourable individual differences or variations occur.[23]

Lamarck's Impact

So, how could these "favorable variations" occur? Darwin tried to answer this question from the standpoint of the primitive understanding of science at that time. According to the French biologist Chevalier de Lamarck (1744-1829), who lived before Darwin, living creatures passed on the traits they acquired during their lifetime to the



French biologist Lamarck put forward a very unreasonable claim that giraffes evolved from antelopes. In fact, God created giraffes specially just like all other living things.

next generation. He asserted that these traits, which accumulated from one generation to another, caused new species to be formed. For instance, he claimed that giraffes evolved from antelopes; as they struggled to eat the leaves of high trees, their necks were extended from generation to generation.

Darwin also gave similar examples. In his book *The Origin of Species*, for instance, he said that some bears going into water to find food transformed themselves into whales over time.[24]

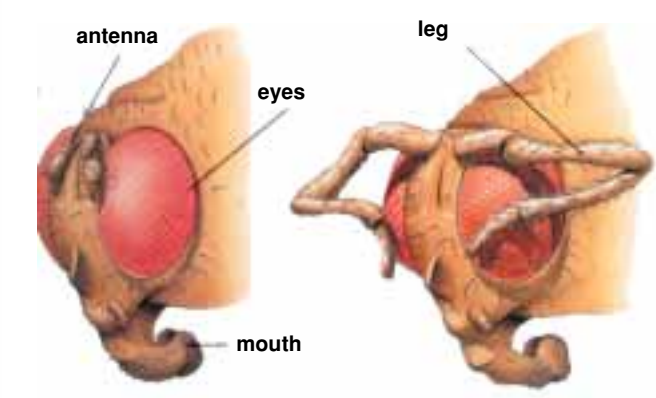
However, the laws of inheritance discovered by Gregor Mendel

(1822-84) and verified by the science of genetics, which flourished in the twentieth century, utterly demolished the legend that acquired traits were passed on to subsequent generations. Thus, natural selection fell out of favor as an evolutionary mechanism.

Neo-Darwinism and Mutations

In order to find a solution, Darwinists advanced the "Modern Synthetic Theory," or as it is more commonly known, Neo-Darwinism, at the end of the 1930s. Neo-Darwinism added mutations, which are distortions formed in the genes of living beings due to such external factors as radiation or replication errors, as the "cause of favorable variations" in addition to natural mutation.

Today, the model that stands for evolution in the world is Neo-Darwinism. The theory maintains that millions of living beings formed as a result of a process whereby numerous complex organs of these organisms (e.g., ears, eyes, lungs, and wings) underwent "muta-



Since the beginning of the century, evolutionists have been trying to produce mutations in fruit flies, and give this as an example for useful mutation. However, the only result obtained at the end of these efforts that lasted for decades were disfigured, diseased and defective flies. Above is the head of a normal fruit fly and on the right is the head of a mutated fruit fly.



The theory of evolution claims that living species gradually evolved from one another. The fossil record, however, explicitly falsifies this claim. For example, in the Cambrian Period, some 550 million years ago, tens of totally distinct living species emerged suddenly. These living beings depicted in the above picture have very complex structures. This fact, referred to as the "Cambrian Explosion" in scientific literature is plain evidence of creation.

tions," that is, genetic disorders. Yet, there is an outright scientific fact that totally undermines this theory: Mutations do not cause living beings to develop; on the contrary, they are always harmful.

The reason for this is very simple: DNA has a very complex structure, and random effects can only harm it. The American geneticist B. G. Ranganathan explains this as follows:

> First, genuine mutations are very rare in nature. Secondly, most mutations are harmful since they are random, rather than orderly changes in the structure of genes; any random change in a highly ordered system will be for the worse, not for the better. For example, if an earthquake were to shake a highly ordered structure such as a building, there would be a random change in the framework of the building which, in all probability, would not be an improvement.[25]

Not surprisingly, no mutation example, which is useful, that is, which is observed to develop the genetic code, has been observed so far. All mutations have proved to be harmful. It was understood that mutation, which is presented as an "evolutionary mechanism," is actually a genetic occurrence that harms living things, and leaves them disabled. (The most common effect of mutation on human beings is cancer.) Of course, a destructive mechanism cannot be an "evolutionary mechanism." Natural selection, on the other hand, "can do nothing by itself," as Darwin also accepted. This fact shows us that there is no "evolutionary mechanism" in nature. Since no evolutionary mechanism exists, no such any imaginary process called "evolution" could have taken place.

The Fossil Record: No Sign of Intermediate Forms

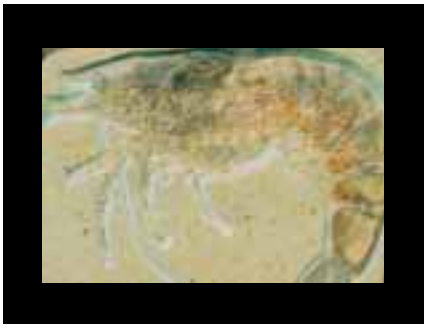
The clearest evidence that the scenario suggested by the theory of evolution did not take place is the fossil record.

According to this theory, every living species has sprung from a predecessor. A previously existing species turned into something else

LIVING FOSSILS



SHRIMP



195 MILLION-YEAR-OLD SHRIMP FOSSIL



DRAGON FLY



150 MILLION-YEAR-OLD DRAGON FLY FOSSIL



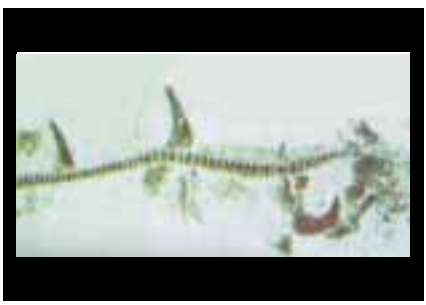
ANT



100 MILLION-YEAR-OLD ANT FOSSIL



SHARK



400 MILLION-YEAR-OLD SHARK FOSSIL

over time and all species have come into being in this way. In other words, this transformation proceeds gradually over millions of years.

Had this been the case, numerous intermediary species should have existed and lived within this long transformation period.

For instance, some half-fish/half-reptiles should have lived in the past which had acquired some reptilian traits in addition to the fish traits they already had. Or there should have existed some reptile-birds, which acquired some bird traits in addition to the reptilian traits they already had. Since these would be in a transitional phase, they should be disabled, defective, crippled living beings. Evolutionists refer to these imaginary creatures, which they believe to have lived in the past, as "transitional forms."

If such animals ever really existed, there should be millions and even billions of them in number and variety. More importantly, the remains of these strange creatures should be present in the fossil record. In *The Origin of Species*, Darwin explained:

> If my theory be true, numberless intermediate varieties, linking most closely all of the species of the same group together must assuredly have existed... Consequently, evidence of their former existence could be found only amongst fossil remains.[26]

Darwin's Hopes Shattered

However, although evolutionists have been making strenuous efforts to find fossils since the middle of the nineteenth century all over the world, no transitional forms have yet been uncovered. All of the fossils, contrary to the evolutionists' expectations, show that life appeared on Earth all of a sudden and fully-formed.

One famous British paleontologist, Derek V. Ager, admits this fact, even though he is an evolutionist:

> The point emerges that if we examine the fossil record in detail, whether at the level of orders or of species, we find-over and over again-not gradual evolution, but the sudden explosion of one group at the expense of another.[27]

This means that in the fossil record, all living species suddenly emerge as fully formed, without any intermediate forms in between. This is just the opposite of Darwin's assumptions. Also, this is very strong evidence that all living things are created. The only explanation of a living species emerging suddenly and complete in every detail without any evolutionary ancestor is that it was created. This fact is admitted also by the widely known evolutionist biologist Douglas Futuyma:

> Creation and evolution, between them, exhaust the possible explanations for the origin of living things. Organisms either appeared on the earth fully developed or they did not. If they did not, they must have developed from pre-existing species by some process of modification. If they did appear in a fully developed state, they must indeed have been created by some omnipotent intelligence.[28]

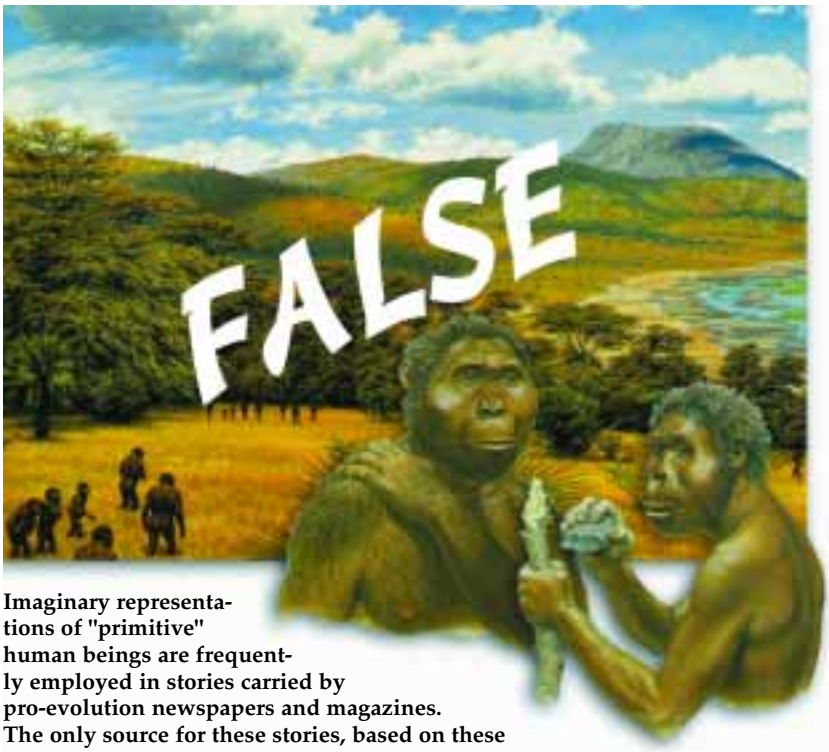
Fossils show that living beings emerged fully developed and in a perfect state on the Earth. That means that "the origin of species," contrary to Darwin's supposition, is not evolution, but creation.

The Tale of Human Evolution

The subject most often brought up by advocates of the theory of evolution is the subject of the origin of man. The Darwinist claim holds that modern man evolved from ape-like creatures. During this alleged evolutionary process, which is supposed to have started 4-5 million years ago, some "transitional forms" between modern man and his ancestors are supposed to have existed. According to this completely imaginary scenario, four basic "categories" are listed:

1. *Australopithecus*
2. *Homo habilis*
3. *Homo erectus*
4. *Homo sapiens*

Evolutionists call man's so-called first ape-like ancestors *Australopithecus*, which means "South African ape." These living



Imaginary representations of "primitive" human beings are frequently employed in stories carried by pro-evolution newspapers and magazines. The only source for these stories, based on these imaginary representations, are the imaginations of their authors. Yet evolution has suffered such a defeat in the face of the scientific facts that fewer reports concerning evolution now appear in scientific magazines.

beings are actually nothing but an old ape species that has become extinct. Extensive research done on various *Australopithecus* specimens by two world famous anatomists from England and the USA, namely, Lord Solly Zuckerman and Prof. Charles Oxnard, shows that these apes belonged to an ordinary ape species that became extinct and bore no resemblance to humans.[29]

Evolutionists classify the next stage of human evolution as "*homo*," that is "man." According to their claim, the living beings in the Homo series are more developed than *Australopithecus*. Evolutionists devise a fanciful evolution scheme by arranging different fossils of these creatures in a particular order. This scheme is imaginary because

it has never been proved that there is an evolutionary relation between these different classes. Ernst Mayr, one of the twentieth century's most important evolutionists, contends in his book *One Long Argument* that "particularly historical [puzzles] such as the origin of life or of Homo sapiens, are extremely difficult and may even resist a final, satisfying explanation."[30]

By outlining the link chain as *Australopithecus* > *Homo habilis* > *Homo erectus* > *Homo sapiens*, evolutionists imply that each of these species is one another's ancestor. However, recent findings of paleoanthropologists have revealed that *Australopithecus*, *Homo habilis*, and *Homo erectus* lived at different parts of the world at the same time.[31]

Moreover, a certain segment of humans classified as *Homo erectus* have lived up until very modern times. *Homo sapiens neandarthalensis* and *Homo sapiens sapiens* (modern man) co-existed in the same region.[32]

This situation apparently indicates the invalidity of the claim that they are ancestors of one another. Stephen Jay Gould explained this deadlock of the theory of evolution, although he was himself one of the leading advocates of evolution in the twentieth century:

> What has become of our ladder if there are three coexisting lineages of hominids (A. africanus, the robust australopithecines, and H. habilis), none clearly derived from another? Moreover, none of the three display any evolutionary trends during their tenure on earth.[33]

Put briefly, the scenario of human evolution, which is "upheld" with the help of various drawings of some "half ape, half human" creatures appearing in the media and course books, that is, frankly, by means of propaganda, is nothing but a tale with no scientific foundation.

Lord Solly Zuckerman, one of the most famous and respected scientists in the U.K., who carried out research on this subject for years and studied *Australopithecus* fossils for 15 years, finally concluded,

despite being an evolutionist himself, that there is, in fact, no such family tree branching out from ape-like creatures to man.

Zuckerman also made an interesting "spectrum of science" ranging from those he considered scientific to those he considered unscientific. According to Zuckerman's spectrum, the most "scientific"-that is, depending on concrete data-fields of science are chemistry and physics. After them come the biological sciences and then the social sciences. At the far end of the spectrum, which is the part considered to be most "unscientific," are "extra-sensory perception"-concepts such as telepathy and sixth sense-and finally "human evolution." Zuckerman explains his reasoning:

> We then move right off the register of objective truth into those fields of presumed biological science, like extrasensory perception or the interpretation of man's fossil history, where to the faithful [evolutionist] anything is possible-and where the ardent believer [in evolution] is sometimes able to believe several contradictory things at the same time.[34]

The tale of human evolution boils down to nothing but the prejudiced interpretations of some fossils unearthed by certain people, who blindly adhere to their theory.

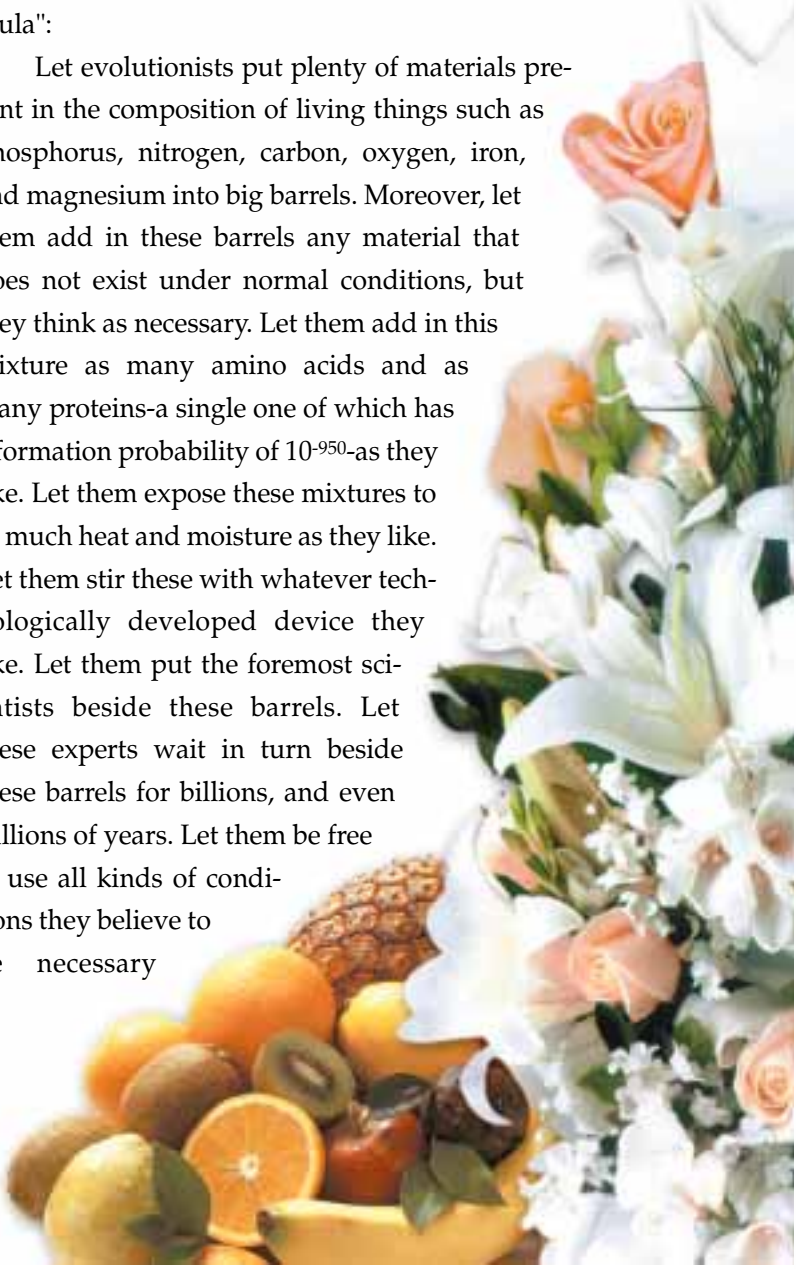
Darwinian Formula!

Besides all the technical evidence we have dealt with so far, let us now for once, examine what kind of a superstition the evolutionists have with an example so simple as to be understood even by children:

The theory of evolution asserts that life is formed by chance. According to this claim, lifeless and unconscious atoms came together to form the cell and then they somehow formed other living things, including man. Let us think about that. When we bring together the elements that are the building-blocks of life such as carbon, phosphorus, nitrogen and potassium, only a heap is formed. No matter what treatments it undergoes, this atomic heap cannot form even a single

living being. If you like, let us formulate an "experiment" on this subject and let us examine on the behalf of evolutionists what they really claim without pronouncing loudly under the name "Darwinian formula":

Let evolutionists put plenty of materials present in the composition of living things such as phosphorus, nitrogen, carbon, oxygen, iron, and magnesium into big barrels. Moreover, let them add in these barrels any material that does not exist under normal conditions, but they think as necessary. Let them add in this mixture as many amino acids and as many proteins-a single one of which has a formation probability of 10^{-950}-as they like. Let them expose these mixtures to as much heat and moisture as they like. Let them stir these with whatever technologically developed device they like. Let them put the foremost scientists beside these barrels. Let these experts wait in turn beside these barrels for billions, and even trillions of years. Let them be free to use all kinds of conditions they believe to be necessary



for a human's formation. No matter what they do, they cannot produce from these barrels a human, say a professor that examines his cell structure under the electron microscope. They cannot produce giraffes, lions, bees, canaries, horses, dolphins, roses, orchids, lilies, carnations, bananas, oranges, apples, dates, tomatoes, melons, watermelons, figs, olives, grapes, peaches, peafowls, pheasants, multicoloured butterflies, or millions of other living beings such as these. Indeed, they could not obtain even a single cell of any one of them.

Briefly, unconscious atoms cannot form the cell by coming together. They cannot take a new decision and divide this cell into two, then take other decisions and create the professors who first invent the electron microscope and then examine their own cell structure under that microscope. Matter is an unconscious, lifeless heap, and it comes to life with God's superior creation.

The theory of evolution, which claims the opposite, is a total fallacy completely contrary to reason. Thinking even a little bit on the claims of evolutionists discloses this reality, just as in the above example.

Technology in the Eye and the Ear

Another subject that remains unanswered by evolutionary theory is the excellent quality of perception in the eye and the ear.

Before passing on to the subject of the eye, let us briefly answer the question of how we see. Light rays coming from an object fall oppositely on the eye's retina. Here, these light rays are transmitted into electric signals by cells and reach a tiny spot at the back of the brain, the "center of vision." These electric signals are perceived in this center as an image after a series of processes. With this technical background, let us do some thinking.

The brain is insulated from light. That means that its inside is completely dark, and that no light reaches the place where it is located. Thus, the "center of vision" is never touched by light and may even



Compared to cameras and sound recording machines, the eye and ear are much more complex, much more successful and possess far superior designs to these products of high technology.

be the darkest place you have ever known. However, you observe a luminous, bright world in this pitch darkness.

The image formed in the eye is so sharp and distinct that even the technology of the twentieth century has not been able to attain it. For instance, look at the book you are reading, your hands with which you are holding it, and then lift your head and look around you. Have you ever seen such a sharp and distinct image as this one at any other place? Even the most developed television screen produced by the greatest television producer in the world cannot provide such a sharp image for you. This is a three-dimensional, colored, and extremely sharp image. For more than 100 years, thousands of engineers have been trying to achieve this sharpness. Factories, huge premises were established, much research has been done, plans and designs have been made for this purpose. Again, look at a TV screen and the book

you hold in your hands. You will see that there is a big difference in sharpness and distinction. Moreover, the TV screen shows you a two-dimensional image, whereas with your eyes, you watch a three-dimensional perspective with depth.

For many years, tens of thousands of engineers have tried to make a three-dimensional TV and achieve the vision quality of the eye. Yes, they have made a three-dimensional television system, but it is not possible to watch it without putting on special 3-D glasses; moreover, it is only an artificial three-dimension. The background is more blurred, the foreground appears like a paper setting. Never has it been possible to produce a sharp and distinct vision like that of the eye. In both the camera and the television, there is a loss of image quality.

Evolutionists claim that the mechanism producing this sharp and distinct image has been formed by chance. Now, if somebody told you that the television in your room was formed as a result of chance, that all of its atoms just happened to come together and make up this device that produces an image, what would you think? How can atoms do what thousands of people cannot?

If a device producing a more primitive image than the eye could not have been formed by chance, then it is very evident that the eye and the image seen by the eye could not have been formed by chance. The same situation applies to the ear. The outer ear picks up the available sounds by the auricle and directs them to the middle ear, the middle ear transmits the sound vibrations by intensifying them, and the inner ear sends these vibrations to the brain by translating them into electric signals. Just as with the eye, the act of hearing finalizes in the center of hearing in the brain.

The situation in the eye is also true for the ear. That is, the brain is insulated from sound just as it is from light. It does not let any sound in. Therefore, no matter how noisy is the outside, the inside of the brain is completely silent. Nevertheless, the sharpest sounds are

perceived in the brain. In your completely silent brain, you listen to symphonies, and hear all of the noises in a crowded place. However, were the sound level in your brain measured by a precise device at that moment, complete silence would be found to be prevailing there.

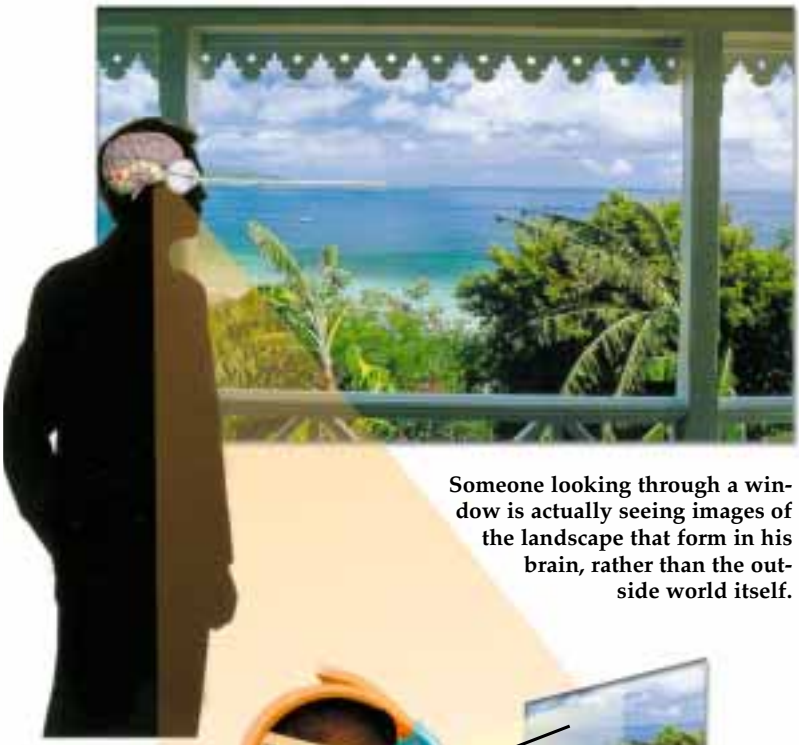
As is the case with imagery, decades of effort have been spent in trying to generate and reproduce sound that is faithful to the original. The results of these efforts are sound recorders, high-fidelity systems, and systems for sensing sound. Despite all of this technology and the thousands of engineers and experts who have been working on this endeavor, no sound has yet been obtained that has the same sharpness and clarity as the sound perceived by the ear. Think of the highest-quality hi-fi systems produced by the largest company in the music industry. Even in these devices, when sound is recorded some of it is lost; or when you turn on a hi-fi you always hear a hissing sound before the music starts. However, the sounds that are the products of the human body's technology are extremely sharp and clear. A human ear never perceives a sound accompanied by a hissing sound or with atmospherics as does a hi-fi; rather, it perceives sound exactly as it is, sharp and clear. This is the way it has been since the creation of man.

So far, no man-made visual or recording apparatus has been as sensitive and successful in perceiving sensory data as are the eye and the ear. However, as far as seeing and hearing are concerned, a far greater truth lies beyond all this.

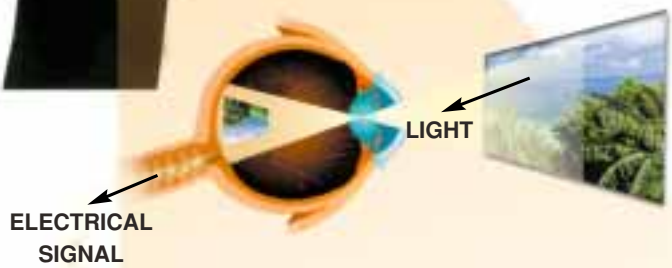
To Whom Does the Consciousness That Sees and Hears within the Brain Belong?

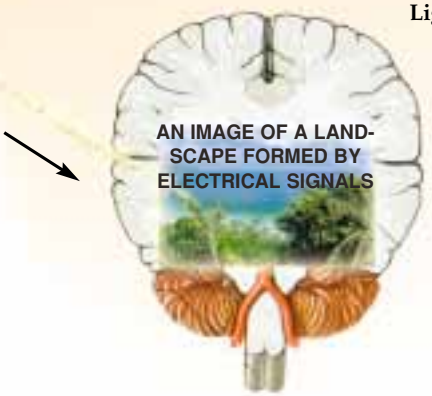
Who watches an alluring world in the brain, listens to symphonies and the twittering of birds, and smells the rose?

The stimulations coming from a person's eyes, ears, and nose travel to the brain as electro-chemical nerve impulses. In biology, physiology, and biochemistry books, you can find many details about how this image forms in the brain. However, you will never come



Someone looking through a window is actually seeing images of the landscape that form in his brain, rather than the outside world itself.





Light reaching the eyes is transformed into electrical signals by the optical cells and transmitted to the visual centre at the rear of the brain. The "consciousness" in our brains perceives these electrical signals as the landscape.

across the most important fact: Who perceives these electro-chemical nerve impulses as images, sounds, odors, and sensory events in the brain? There is a consciousness in the brain that perceives all this without feeling any need for an eye, an ear, and a nose. To whom does this consciousness belong? Of course it does not belong to the nerves, the fat layer, and neurons comprising the brain. This is why Darwinist-materialists, who believe that everything is comprised of matter, cannot answer these questions.

For this consciousness is the spirit created by God, which needs neither the eye to watch the images nor the ear to hear the sounds. Furthermore, it does not need the brain to think.

Everyone who reads this explicit and scientific fact should ponder on Almighty God, and fear and seek refuge in Him, for He squeezes the entire universe in a pitch-dark place of a few cubic centimeters in a three-dimensional, colored, shadowy, and luminous form.

A Materialist Faith

The information we have presented so far shows us that the theory of evolution is incompatible with scientific findings. The theory's claim regarding the origin of life is inconsistent with science, the evolutionary mechanisms it proposes have no evolutionary power, and fossils demonstrate that the required intermediate forms have never existed. So, it certainly follows that the theory of evolution should be pushed aside as an unscientific idea. This is how many ideas, such as the Earth-centered universe model, have been taken out of the agenda of science throughout history.

However, the theory of evolution is kept on the agenda of science. Some people even try to represent criticisms directed against it as an "attack on science." Why?

The reason is that this theory is an indispensable dogmatic belief for some circles. These circles are blindly devoted to materialist phi-

losophy and adopt Darwinism because it is the only materialist explanation that can be put forward to explain the workings of nature.

Interestingly enough, they also confess this fact from time to time. A well-known geneticist and an outspoken evolutionist, Richard C. Lewontin from Harvard University, confesses that he is "first and foremost a materialist and then a scientist":

> It is not that the methods and institutions of science somehow compel us accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counter-intuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, so we cannot allow a Divine Foot in the door.[35]

These are explicit statements that Darwinism is a dogma kept alive just for the sake of adherence to materialism. This dogma maintains that there is no being save matter. Therefore, it argues that inanimate, unconscious matter created life. It insists that millions of different living species (e.g., birds, fish, giraffes, tigers, insects, trees, flowers, whales, and human beings) originated as a result of the interactions between matter such as pouring rain, lightning flashes, and so on, out of inanimate matter. This is a precept contrary both to reason and science. Yet Darwinists continue to defend it just so as "not to allow a Divine Foot in the door."

Anyone who does not look at the origin of living beings with a materialist prejudice will see this evident truth: All living beings are works of a Creator, Who is All-Powerful, All-Wise, and All-Knowing. This Creator is God, Who created the whole universe from non-existence, designed it in the most perfect form, and fashioned all living beings.

The Theory of Evolution: The Most Potent Spell in the World

Anyone free of prejudice and the influence of any particular ideology, who uses only his or her reason and logic, will clearly understand that belief in the theory of evolution, which brings to mind the superstitions of societies with no knowledge of science or civilization, is quite impossible.

As explained above, those who believe in the theory of evolution think that a few atoms and molecules thrown into a huge vat could produce thinking, reasoning professors and university students; such scientists as Einstein and Galileo; such artists as Humphrey Bogart, Frank Sinatra and Luciano Pavarotti; as well as antelopes, lemon trees, and carnations. Moreover, as the scientists and professors who believe in this nonsense are educated people, it is quite justifiable to speak of this theory as "the most potent spell in history." Never before has any other belief or idea so taken away peoples' powers of reason, refused to allow them to think intelligently and logically, and hidden the truth from them as if they had been blindfolded. This is an even worse and unbelievable blindness than the Egyptians worshipping the Sun God Ra, totem worship in some parts of Africa, the people of Saba worshipping the Sun, the tribe of Prophet Abraham (pbuh) worshipping idols they had made with their own hands, or the people of Prophet Moses (pbuh) worshipping the Golden Calf.

In fact, God has pointed to this lack of reason in the Qur'an. In many verses, He reveals that some peoples' minds will be closed and that they will be powerless to see the truth. Some of these verses are as follows:

> **As for those who do not believe, it makes no difference to them whether you warn them or do not warn them, they will not believe. God has sealed up their hearts and hearing and over their eyes is a blindfold. They will have a terrible punishment. (Qur'an, 2:6-7)**

… They have hearts with which they do not understand. They have eyes with which they do not see. They have ears with which they do not hear. Such people are like cattle. No, they are even further astray! They are the unaware. (Qur'an, 7:179)

Even if We opened up to them a door into heaven, and they spent the day ascending through it, they would only say: "Our eyesight is befuddled! Or rather we have been put under a spell!" (Qur'an, 15:14-15)

Words cannot express just how astonishing it is that this spell should hold such a wide community in thrall, keep people from the truth, and not be broken for 150 years. It is understandable that one or a few people might believe in impossible scenarios and claims full of stupidity and illogicality. However, "magic" is the only possible explanation for people from all over the world believing that unconscious and lifeless atoms suddenly decided to come together and form a universe that functions with a flawless system of organization, discipline, reason, and consciousness; a planet named Earth with all of its features so perfectly suited to life; and living things full of countless complex systems.

In fact, the Qur'an relates the incident of Prophet Moses (pbuh) and Pharaoh to show that some people who support atheistic philosophies actually influence others by magic. When Pharaoh was told about the true religion, he told Prophet Moses (pbuh) to meet with his own magicians. When Moses (pbuh) did so, he told them to demonstrate their abilities first. The verses continue:

He said: "You throw." And when they threw, they cast a spell on the people's eyes and caused them to feel great fear of them. They produced an extremely powerful magic. (Qur'an, 7:116)

As we have seen, Pharaoh's magicians were able to deceive everyone, apart from Moses (pbuh) and those who believed in him. However, his evidence broke the spell, or "swallowed up what they had forged," as the verse puts it:

We revealed to Moses, "Throw down your staff." And it immediately swallowed up what they had forged. So the Truth took place and what they did was shown to be false. (Qur'an, 7:117-118)

As we can see, when people realized that a spell had been cast upon them and that what they saw was just an illusion, Pharaoh's magicians lost all credibility. In the present day too, unless those who, under the influence of a similar spell, believe in these ridiculous claims under their scientific disguise and spend their lives defending them, abandon their superstitious beliefs, they also will be humiliated when the full truth emerges and the spell is broken. In fact, world-renowned British writer and philosopher Malcolm Muggeridge also stated this:

> I myself am convinced that the theory of evolution, especially the extent to which it's been applied, will be one of the great jokes in the history books in the future. Posterity will marvel that so very flimsy and dubious an hypothesis could be accepted with the incredible credulity that it has.[36]

That future is not far off: On the contrary, people will soon see that "chance" is not a deity, and will look back on the theory of evolution as the worst deceit and the most terrible spell in the world. That spell is already rapidly beginning to be lifted from the shoulders of people all over the world. Many people who see its true face are wondering with amazement how they could ever have been taken in by it.

They said "Glory be to You!
We have no knowledge except what You have taught us.
You are the All-Knowing, the All-Wise."
(Qur'an, 2:32)

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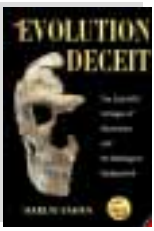
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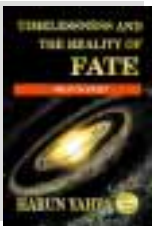
ALSO BY HARUN YAHYA



Many people think that Darwin's Theory of Evolution is a proven fact. Contrary to this conventional wisdom, recent developments in science completely disprove the theory. This book clarifies the scientific collapse of the theory of evolution in a way that is detailed but easy to understand. Anyone who wants to learn about the origin of living things, including mankind, needs to read this book.



When a person examines his own body or any other living thing in nature, the world or the whole universe, in it he sees a great design, art, plan and intelligence. All this is evidence proving Allah's being, unit, and eternal power. *For Men of Understanding* .is also available in Indonesian, German, French, Urdu and Russian.



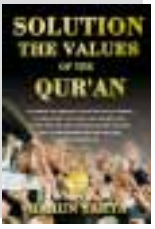
How was matter and time created from nothingness? What does the Big Bang theory signify about the creation of the universe? What is the parallelism between Einstein's Theory of Relativity and the Qur'anic verses? All of these questions are answered in this book. If you want to learn the truths about space, matter, time and fate, read this book.



Today, science has proven that the universe was created from nothing with a Big Bang. Everything from the nuclear reactions in stars to the chemical properties of a carbon atom or a water molecule, is created in a glorious harmony. This is the exalted and flawless creation of Allah.



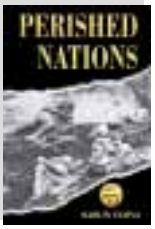
Fascism and communism, which made humanity suffer dark times, are fed from the same source, on the grounds of which they can attract masses to their side. This source is the materialist philosophy and its adaptation to nature, which is Darwinism. The acknowledgement of the scientific invalidity of this theory will bring about the end of all these detrimental ideologies.



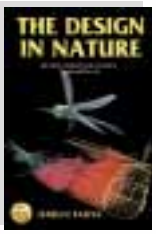
People who are oppressed, who are tortured to death, those who cannot afford even a loaf of bread, women, children, and old people who are expelled from their homes because of their religion… Eventually, there is only one solution to the injustice, chaos, hunger, and oppression: the values of the Qur'an.



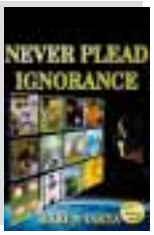
This book gets into detail on the issue of origins and makes a comprehensive and technical refutation of Darwinist theory. As it is mentioned in the book, anyone who still defends the theory of evolution has to come into terms with this book and face its challenge. Otherwise, he will de facto accept that his allegiance to the theory of evolution is a non-scientific approach but a materialistic dogma.



Many societies that rebelled against the will of God or regarded His messengers as enemies were wiped off the face of the earth completely... *Perished Nations* examines these penalties as revealed in the verses of the Quran and in light of archaeological discoveries.



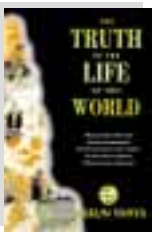
When you read this book, you will see that Darwin's theory has absolutely broken down, just as he feared it would. A thorough examination of the feathers of a bird, or the wing structure of a fly reveal amazingly complex designs. And these designs indicate that they are created flawlessly by God.



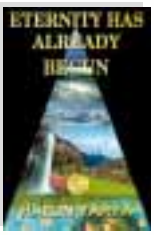
Never plead ignorance of God's evident existence, that you will not stay so long in this world, of the reality of death, that the Qur'an is the Book of truth, that you will give account for your deeds, of the voice of your conscience that always invites you to righteousness.



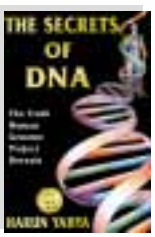
This book is a summons to think. A summons to ponder over the universe and living beings and see how they have been created flawlessly.



The world is a temporary place specially created by God to test man. Each and every attraction existing in the world eventually wears out, becomes corrupt, decays and finally disappears. This book leads man to ponder the real place to which he belongs, namely the hereafter.



In this book you will find explanations about eternity, timelessness and spacelessness that you will never have encountered anywhere else and you will be confronted by the reality that eternity has already begun.



Scientific progress makes it clear that living beings have an extremely complex structure and an order that is too perfect to have come into being by accident. In this book, the unique creation of God is once again disclosed for all to see.



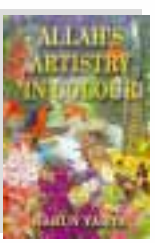
When the events of "sickness" and "recovering" take place, our bodies become a battleground in which a bitter struggle is taking place. The body however has a mechanism that combats them. This system proves that the human body is the outcome of a unique design that has been planned with a great wisdom and skill.



The way to examine the universe and all the beings therein and to discover God's art of creation and announce it to humanity is "science". Therefore, religion adopts science as a way to reach the details of God's creation. This book is about this close link between science and religion.



The plan, design, and delicate balance existing in our bodies and reaching into even the remotest corners of the iuniverse must surely have a superior Creator. Man is unable to see his Creator yet he can nevertheless grasp His existence, strength, and wisdom by means of his intellect.



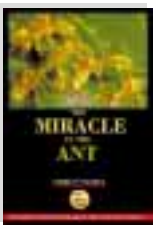
Colours, patterns, spots even lines of each living being existing in nature have a meaning. An attentive eye would immediately recognise that not only the living beings, but also everything in nature are just as they should be.



The information hidden inside DNA controls the thousands of different events that take place in the cells of the human body and in the functioning of its systems. In the same way that every book has a writer and owner, so does the information in DNA: and that Creator is our Lord God, the All-Wise.



Just as a tiny key opens a huge door, this book will open new horizons for its readers. Relating the amazing and admirable features of spiders known by few people, this book reveals the excellence and perfection inherent in God's creation.



These millimeter-sized animals have an excellent ability for organization and specialization that is not to be matched by any other being on earth. These aspects of ants create in one a great admiration for God's superior power and unmatched creation.



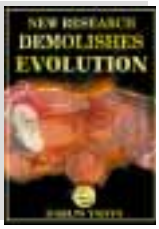
The purpose of this book is to display the miraculous features of plants and hence to make people see "the creation miracle" in things -they often encounter in the flow of their daily lives and sidestep.



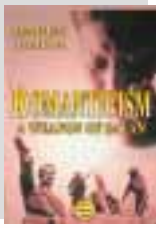
This book maintains that the source of the scourge of terrorism does not come from a divine religion, and that there is no room for terrorism in Islam.



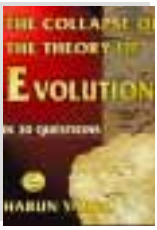
The content of this book is an extremely important truth:"All events, people, buildings, cities, cars, places, which are a part of our life in this world, in short, everything we see, hold, touch, smell, taste and hear, are actually illusions and sensations that form in our brain."



This book deals with how the theory of evolution is invalidated by scientific findings and experiments in a concise and simple language.



This book reveals what a serious threat romanticism poses to societies and individuals, and shows how easy it is to eliminate this danger.



The theory of evolution has been on the agenda for 150 years, deeply affecting numerous peoples' outlook on life. It imposes on them the lie that they are an "animal species" that came into being as a result of coincidences. In this book, commonly asked questions about the theory of evolution and evolutionary claims on these issues are answered.



Fascism is an ideology that has brought great disasters to humanity. The main purpose of the book is to present various fascist tendencies which appear under different methods and guises, and expose their real origins and objectives.



The unprecedented style and the superior wisdom inherent in the Qur'an is conclusive evidence confirming that it is the Word of God. In this book, in addition to the scientific miracles of the Qur'an, you will also find messages regarding the future.



Moses is the prophet whose life is most narrated in the Qur'an. This book provides a thorough examination into the life of the Prophet Moses (as) in the light of the Qur'anic verses.



Everything that constitutes our life is a totality of perceptions received by our soul. In the book, which consists of a conversation between four people, the prejudices that prevent people from understanding this great truth are removed, and the misconceptions they have are explained.



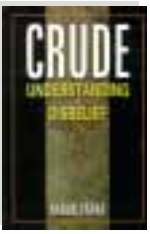
This book presents the philosophy of freemasonry, and provides a detailed account of how this philosophy infiltrated first into the West, and then into other civilizations of the world. The main theme can be summed up as "the history of the war that freemasonry waged against religion."



A person who examines any corner of the universe sees a flawless plan incorporating both order and design. Everywhere in the universe there prevails an admirable glory. This glory is the superior and matchless artistry of God, Who creates everything.



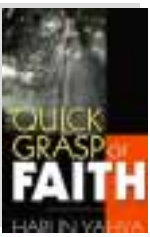
In the Qur'an, God tells people many secrets. For people who learn these secrets of the Qur'an, however, the life of this world is very easy, and full of joy and excitement. This book deals with the subjects God related to people as a secret.



God, in the Qur'an, calls the culture of people who are not subject to the religion of God "ignorance." The purpose of this book is to take this comparison further, displaying the extent of the "crude understanding" of ignorant societies.



God creates every word one utters, and every event one experiences, from the moment one is born into tis world. For a believer who understands this fact, uninterrupted joy of faith becomes an unchanging quality of life. The fate decreed by God is flawless.



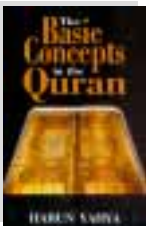
There are questions about religion that people seek answers to and hope to be enlightened in the best way. In these booklets, you will find the most accurate answers to all the questions you seek answers for and learn your responsibilities towards your Creator.



This book, based on the verses of the Qur'an, makes a detailed depiction of the moment of death, the day of judgement, and the penalties in hell, and it sounds a warning about the great danger facing us.



This book is a summons to those who want goodness to prevail: it calls on them to do goodness and to form an alliance with other good people like themselves.



The Qur'an has been revealed to us so that we may read and ponder. The Basic Concepts of the Qur'an is a useful resource prepared as a guide to thinking.



Based on the information conveyed in the Qur'an, this book gives an account of God's attributes, our purpose in this world, what we have to do to fulfill this purpose.



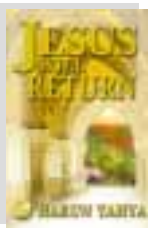
This book introduces the real concept of conscience that is related in the Qur'an and draws our attention to the kind of understanding, thought, and wisdom that a truly conscientious person has.



The purpose of this book is to present the Prophet Mohammed (pbuh) in all the aspects of his character, show how superior a community made up of individuals who emulate his character will be, and call people to the way of the Prophet Mohammed (pbuh).



This book includes Internet pages of Islamic organizations, and various universities, where you can findHarun Yahya's works, and reviews written by various scholars, together with an account of the reactions from the fairs and conferences that have presented the author's works.



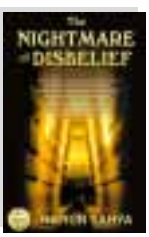
In the Qur'an, there is an explicit reference to the "second coming of the Jesus to the world" which is heralded in a hadith. The realisation of some information revealed in the Qur'an about Jesus can only be possible by Jesus' second coming…



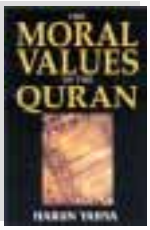
In order for justice to reign on the Earth, a morality that will make people leave their own interests aside in favor of justice is needed. This morality is the Qur'anic morality that God teaches and commands us.



The most serious mistake a man makes is not pondering. It is not possible to find the truth unless one thinks about basic questions such as "How and why am I here?", "Who created me?", or "Where am I going?."



That people do not adopt the moral values of the Qur'an and submit to God underlie the personal and social depression, pain, fears and lack of confidence that is widely experienced today. This book explains the detriments that disbelief gives to people.



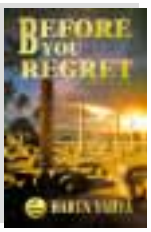
A study that examines and seeks to remind us of the basic moral principles of the Qur'an, particularly those that are most likely to be forgotten or neglected at times. This book is also available in Bengoli.



The Qur'an has been sent down as a book easily understandable by everyone. In this book, the reasons why those people misinterpret the Qur'an are examined and some examples of the objections they make are reviewed and answered.



In this book, all ideologies based on disbelief are referred to as "the religions of irreligion." That is simply because these ideologies have in time evolved to become religions with a complete system of beliefs, practices, and rules for conducting one's daily life.



The purpose of this book is to warn people against the day on which they will say "If only we did not rebel against God. If only we listened to the messengers…" and therefore feel deep regret.



Some of the sayings of the Prophet Muhammad (saas) have to do with the signs of the last day. In this book, the signs of the last day are examined in the light of the verses and the sayings of the Prophet Muhammad (saas).



A believer who decides to live for the cause of God must abandon all the idols of the society of ignorance *Devoted to God* is a summons to overthrow these idols for good.



Devil has found allies for himself in every age. The anti-Christ, who will emerge as the greatest negative power in the end times, is one of them. The purpose of this book is to portray the anti-Christ in all its features as described in the sayings of the Prophet Muhammad (saas).



This book is about the enthusiasm of believers that keeps growing until the end of their lives. The main aim of the book is to increase the enthusiasm of believers showing them what a great blessing enthusiasm is, and how it enhances the power of believers.



One of the principal deceptions that impel people into delinquency is the fact that they constantly forget the basic facts of life. This book summons man to remember facts that his soul prompts him to forget.



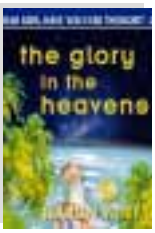
This book, based on the verses of the Qur'an, makes a detailed depiction of the moment of death, the day of judgement, and the penalties in hell, and it sounds a warning about the great danger facing us.



This is a book you will read with pleasure and as it makes explicitly clear why the theory of evolution is the greatest aberration in the history of science.



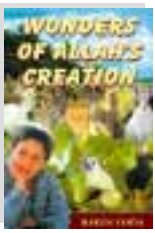
This booklet, includes summaries of all the works of Harun Yahya. Anyone who reads these books seriously and carefully will soon gain a deep insight into the true nature of the world he lives in.



Have you ever thought about the vast dimensions of the universe we live in? As you read this book, you will see that our universe and all the living things therein are created in the most perfect way by our Creator, God. This children's book is also available in Russian.



Dear kids, while reading this book you will see how God has created all the creatures in the most beautiful way and how every one of them show us His endless beauty, power and knowledge. The World of Animals is also available in French and Russian.



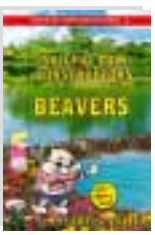
Children! Have you ever asked yourself questions like these: How did our earth come into existence? Where were you before you were born? How did oceans, trees, animals appear on earth? Who was the first human being? In this book you will find the true answers to these questions.



What do you think about ants? Do you know about their abilities and intelligent behavior? Do you know why Omar is fascinated by the little world of the ants? If you want to learn the answers to these questions, read this book.



Dear children, while reading this book, you will see how God has created all the creatures in the most beautiful way and how every one of them show us His endless beauty, power and knowledge.



When you read this book you will learn a great deal about beavers. You will learn that Karim's new friends build intricate constructions with innate skills. And finally, you will learn that it is God, Who endowed them with these skills.



Omar meets his friend, honeybee, in a trip to a forest. The honeybee tells him how they build honeycombs, what kind of an order there is in their hive, and many other things. At the end of this visit, Omar learns that it is our Lord, God, Who taught honeybees everything they know.



Children, the wide world you enter as you read this book is one of enormous concern to you. You may not have realized it so far, but trillions of workers are currently working on your behalf in this giant world. You will learn how these workers in your body, the wide world in question, are cells, far too small to be visible to the naked eye.



Countless species live on the earth, some of which you will be familiar with, and others not. Each one of these creatures, from the dogs or cats which you come across every day, to the wild animals living in the jungle, have wonderful features and fascinating abilities. All of these are a reflection of God's infinite power and artistry. In this book, you will read about the interesting features and amazing accomplishments of these wonderful creatures.



This book gives an insight into some good moral aspects of the Karma philosophy which are in agreement with the Koran, as well as its twisted views which conflict with human reason and conscience. The book also explains why following God's way and living by the Qur'an is the only way to real happiness, peace, and security.



A person having fear of God naturally shows mercy for His servants and treats them kindly. Yet it is essential to distinguish between the concept of mercy, as conceived by people of ignorance, and the mercy described in the Qur'an. This book was written for that purpose.



The main purpose of this book is to fully reveal the plight of oppressed Muslims across the world, and to invite people of conscience to think on this reality and look for solutions. The expected spring is, by the will of God, to come soon.



Some religious people think that the theory of evolution is a scientific fact and look for a "middle way" between this theory and belief in God. However, in truth, the ideological framework behind the theory consists of anti-religious thought put forward to strengthen atheism. This book is aimed at offering a response to those Muslims who try to find common ground between the theory of evolution and the fact of creation, and who even try to find evidence for the theory in the Qur'an.



This book maintains that only love, tolerance and peace can eradicate terrorism and reveals, with quotations from the Qur'an, the New Testament and the Torah, that terrorism is a form of savagery condemned by all divine religions. With examples from history, the book demonstrates that the only way to fight terrorism is to embrace the sentiments fostered by the values of religion, such as love, compassion, forgiveness, tolerance and justice.



The creation of man, who is endowed with a highly complicated body structure, from a drop of water, comes about through an extraordinary course of development. This development certainly does not happen as the result of an idle process, and random coincidences, but is a conscious act of creation. This book is about the details of the "miracle in man's creation".



Being a true servant of God and conducting one's life in the light of the Qur'an require a sound knowledge of the Qur'an. This book is prepared for those who aim to attain the good pleasure, mercy, and Paradise of God.



The adjective "perfected" (kamil) carries the meaning inclusive, entire and complete. The "perfected faith" discussed in this book represents the highest level of maturity and depth of faith a person can never attain.



Are you aware of the beauties that are presented by the Qur'an for human life? Have you ever thought about the benefits a person and society have when they follow the commandments of the Qur'an? With this book, you will also recognise the beauties presented by the Qur'an for life.



This book has been prepared to demonstrate that the Qur'an is the word of God, it is a guide and a reminder, it addresses everyone in the world, and its pronouncements are valid for all times, right from the time of its revelation. It is therefore the most important source everyone must refer to. For man to be guided to the truth, it is imperative that he know Islam and comprehend the verses of the Qur'an.



Man is a being to which God has granted the faculty of thinking. Yet a majority of people fail to employ this faculty as they should… The purpose of this book is to summon people to think in the way they should and to guide them in their efforts to think. This book is also available in Indonesian.



This book is about sincerity, an important characteristic of believers which makes deeds worthy and meaningful in God's sight. Sincerity (ikhlas) is doing everything simply because God ordered it, without expecting any personal benefit in return. In the Qur'an, God gives the good tidings of paradise to His sincere servants.



In a body that is made up of atoms, you breathe in air, eat food, and drink liquids that are all composed of atoms. In this book, the implausibility of the spontaneous formation of an atom, the building-block of everything, living or non-living, is related and the flawless nature of God's creation is demonstrated.

AUDIO CASSETTE SERIES



THE FACT OF CREATION

The titles in this series include The Theory of Evolution The Fact of Creation, The Creation of the Universe/The Balances in the Earth, The Miracle in the Cell/The Miracle of Birth, The Miracle in the Eye/The Miracle in the Ear, The Design in Animals/The Design in Plants, The Miracle in the Honeybee/The Miracle in the Ant, The Miracle in the Mosquito/The Miracle in the Spider, Self-Sacrifice in Living Things/Migration and Orientation, The Miracle of Creation in DNA, Miracles of the Qur'an.



EVER THOUGHT ABOUT THE TRUTH? I

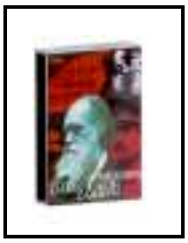
The titles in this series include Ever Thought About the Truth?, Devoted to God, The Mature Faith, The Religion of the Ignorant, The Crude Understanding of Disbelief, The Importance of Conscience in the Qur'an, Never Forget, Before You Regret, Death Hereafter Hell, Paradise.



EVER THOUGHT ABOUT THE TRUTH? II

The titles in this series include The Fear of God, The Nightmare of Disbelief, The Struggle of the Religion of Irreligion, Beauties Presented by the Qur'an for Lİfe, The Arrogance of Satan, The Mercy of Believers, The Iniquity Called Mockery, Perished Nations, The Secret Beyond Matter, Timelessness and The Reality of Fate.





The audio cassettes Perished Nations and The Dark Face of Darwin were inspired by the works of Harun Yahya



The Collapse of Evolution The Fact of Creation audio cassette is also available in Russian.

The works of Harun Yahya are also produced in the form of documentary films and audio cassettes. In addition to English, some of these products are also available in English, Arabic, German, and Russian.

VIDEO FILMS







The works of Harun Yahya are also produced in the form of documentary films and audio cassettes. In addition to English, some of these products are also available in English, Arabic, German, and Russian.



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